AMAZON MALARIA INITIATIVE (AMI)
COMMUNICATION COMPONENT

ANNUAL SUMMARY REPORT

Reporting Period: October 1, 2014 — September 30, 2015

Contract No. AID-527-C-13-00004

USAID
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LINKS MEDIA
Creating a Culture of Learning

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About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

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Abbreviations and Acronyms

ACT	Artemisinin-based Combination Therapy
AMI	Amazon Malaria Initiative
ASTMH	American Society for Tropical Medicine and Hygiene
BCC	Behavior change communication
CDC	United States Centers for Disease Control and Prevention
CHAI	Clinton Health Access Initiative
CLAIM	Latin American Malaria Research Center
EMMIE	Initiative for the Elimination of Malaria in Mesoamerica and the Island of Hispaniola
FAQs	Frequently Asked Questions
FY	Fiscal Year
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
HRP2	Histidine-Rich Protein-2
IR	Intermediate Result
IRS	Indoor Residual Spraying
IVM	Integrated Vector Management
LAC	Latin American and the Caribbean
LLIN	Long-Lasting Insecticidal Net
MOH	Ministry of Health
MSH	Management Sciences for Health
MSPS	Colombia's Ministry of Health and Social Protection
NMCP	National Malaria Control Program
PAHO	Pan American Health Organization
PMI	President's Malaria Initiative
PQM	Promoting the Quality of Medicines Program
PY1	Performance Year 1
PY2	Performance Year 2
RAVREDA	Amazon Network for the Surveillance of Antimalarial Drug Resistance
RDT	Rapid Diagnostic Test
SIAPS	USAID-funded Systems for Improved Access to Pharmaceuticals and Services Program
TA	Technical Assistance
USAID	United States Agency for International Development
USP	United States Pharmacopeial Convention
WHO	World Health Organization

I. Executive Summary

Links Media was the architect of strategic communication plans designed to contribute to raising the awareness and educating policy-makers and influential stakeholders, including healthcare professionals, program administrators, researchers, and donors; and to identify, mobilize, and engage community support and resources for malaria control and elimination in the Amazon basin and Central America. Work was conducted by adhering to a rigorous process of audience and environmental assessments, strategic planning, harmonization of collateral communication plans developed by ministries of health, implementing partners and the donor community, gathering input and obtaining revisions; and dissemination of strategies through targeted technical assistance, virtual and in-person meetings, and the production and distribution of documents and collateral materials via multiple traditional, digital, and social media networks. In all, Links Media produced communication strategies for Peru, Suriname, and a bloc of five Central American countries (Belize, Guatemala, Honduras, Nicaragua, and Panama), conducted seven technical assistance (TA) activities, engaged in 20 dissemination activities, strengthened 13 institutions, and reached over 6,800 individuals with messages about malaria in the Americas.

This report summarizes the activities, outputs, and results achieved by Links Media during the second performance year (PY2) of the contract for FY 2015. It provides details of the processes, inputs and outputs, tasks completed, benchmarks achieved, performance standards fulfilled, and recommendations for addressing current and potentially emerging challenges for the Amazon Malaria Initiative in FY 2016 and beyond.

II. Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to and quality of malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (AMI implementing partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health (MOHs) and national malaria control programs grouped in the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise promoted and supported by AMI. Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance

(TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

III. Summary of Progress and Key Achievements

Links Media led the development, adoption, and implementation of communication tools designed to inform policies for efficient and sustainable interventions to prevent, control, and eliminate malaria in Latin America and the Caribbean. Highlights of Links Media's contributions to AMI during PY2 are described in this section.

We developed and published communication strategies for malaria, including the *Strategic Malaria Communication Guide for Central America* in both English and Spanish. For the latter document, Links Media helped Belize, Guatemala, Honduras, Nicaragua, and Panama to harmonize their strategic plans in support of malaria elimination. This regional communication strategy was accompanied by targeted implementation assistance to Guatemala and coordination with the Regional Civil Society League for Malaria. Links Media also delivered national communication strategies for Suriname and Peru in March and July 2015, respectively.

Technical assistance provided to AMI-supported countries to assist with implementation of communication strategies for malaria included guidance for the Brazilian NMCP to develop a national social mobilization strategy for malaria focusing on *garimpeiros* (artisanal gold miners) and indigenous populations that are most at risk (June 2015). Links Media also drafted a policy paper with the Colombian Ministry of Health and Social Protection that summarized the benefits of communication interventions for malaria control, with the aim of informing decentralized decision-makers about how to allocate resources for malaria based on past assessments of program effectiveness (April-August 2015).

Our information dissemination and stakeholder engagement helped to inform decision-making processes and keep malaria on the public policy agenda in the Latin America and the Caribbean (LAC) region. Links Media researched, conceptualized, produced, and disseminated an array of information and communication products. We developed new AMI fact sheets on *Antimalarial Medicine Resistance, Malaria Elimination FAQs*, and *Selected References on Malaria Elimination* for use by the 11 NMCPs. We also developed and circulated four AMI quarterly bulletins to enhance stakeholder coordination. We made these and other materials available electronically via the AMI project website, social media, and external websites. In June 2015, Links Media achieved Spanish-language media coverage of a journal article about molecular analysis techniques that could be used to control malaria in LAC, with the aim of promoting widespread national adoption of such techniques.

All in all, we reached stakeholders in the LAC region through a variety of information products and venues:

- Quarterly news bulletins
- Brochures and fact sheets
- News releases and article placements
- Project website
- Social media
- Electronic clearinghouses

Outputs and contribution to long-term outcomes

The following points provide an overview of Links Media's outputs under the AMI Communication Component during FY 2015:

- Communication strategy geared towards elimination as a long-term goal developed for the Central America sub-region (in English and Spanish)
- Country communication strategies created for Peru and Suriname
- Seven (7) virtual and in-person TA sessions with six (6) countries: Brazil, Colombia, Guatemala, Guyana, Peru, and Suriname
- New AMI fact sheets for diverse stakeholders in English, Spanish, and Portuguese: *Antimalarial Medicine Resistance, Malaria Elimination FAQs, Malaria in Low-Incidence Settings,* and *Selected References on Malaria Elimination*
- Media pitching to selected US and international news outlets on topics related to malaria in Latin America and the Caribbean
- Weekly maintenance of the AMI project website and social media
- Development and dissemination of four (4) AMI quarterly bulletins to over 400 email subscribers
- Promotion of AMI implementing partner publications using electronic alerts, social media and external websites such as ReliefWeb.int and others
- Rapid response to a reported malaria outbreak in the state of Rio de Janeiro, Brazil in February 2015, including the gathering and circulation of information to USAID, PAHO/WHO and the CDC within hours to help clarify details and formulate a response
- Two poster presentations on malaria in the Americas conceptualized and developed for international research conferences

Outputs contributed to sustainable outcomes in AMI-supported countries in several key ways. In Colombia, Links Media articulated a comprehensive policy recommendation for decentralized governments to adopt good practices for health communication. We recommended a series of approaches that have been proven to reduce malaria incidence and prevalence in the Colombian context, providing specific behavior change communication (BCC) advice, and researched and wrote a policy document. We then solicited input from government and non-governmental stakeholders. With our Colombian counterparts, we discussed a launch strategy for the document, including timing. With this, we informed decision-makers and contributed to the institutionalization of good practices.

Targeted technical assistance to Brazil supported social participation for more inclusive and sustainable malaria prevention and control actions at the decentralized levels. Links Media supported greater transparency of efforts, genuine participation of disenfranchised groups such as artisanal gold miners and indigenous peoples, as well as NMCP collaboration with other divisions in the ministry of health, state and municipal government, civil society, and other key stakeholders. Our support catalyzed the NMCP to move expeditiously in the elaboration of a national social mobilization strategy with input from multiple decentralized authorities and other stakeholders. This will be essential for the future of the NMCP, because political sustainability of malaria control and elimination in the Brazilian context depends on the commitment of those decentralized authorities who execute control strategies including social mobilization.

For five Central American countries, we harmonized a comprehensive set of communication and advocacy recommendations that will be used to orient regional actions towards malaria elimination. Specifically, our strategic recommendations will help to mobilize resources from MOHs, the donor

community, and private funding sources to support the functioning of a regional communication program that will last for years.

Progress against expected results

Links Media is confident that countries are gradually improving their communication abilities to promote good malaria prevention, control, and elimination practices based on the scientific evidence. In addition, scientists in the region have better articulated and disseminated new research findings for use by program managers and other decision-makers. Links Media has contributed to bridging the gap between scientists and program managers, as well as contributed to bringing countries closer to meeting their control and elimination objectives through the TA that we have provided in malaria communication and advocacy.

With respect to the primary performance indicator "Number of institutions with improved decision-making capacities as a result of USG assistance," Links Media's FY 2015 target was to work with 10 out of 11 AMI-supported countries' NMCPs. Links Media exceeded this target by improving the decision-making of all 11 NMCPs with the development and updating of communication strategies, as well as by advising two decentralized institutions. This year, Links Media directly advised decentralized authorities in Peru (the Regional Health Directorate of Loreto) and Guyana (Vector Control Services, Region 8); in total, Links Media helped to improve the decision-making capacities of 13 institutions. Links Media intends to continue working with the NMCPs of all AMI-supported countries in FY 2016 to follow up on their execution of the national and regional communication strategies for malaria.

Impact of host country commitment, challenges, and synergies with other donors' activities

Colombia's Ministry of Health and Social Protection (MSPS) strongly supported using USAID funding to follow up on past malaria communication activities financed by the Global Fund to Fight AIDS, TB and Malaria (GFATM) through a request for Links Media's assistance in researching and drafting a policy paper. With this, we helped to inform decentralized decision-makers about the benefit of executing communication guidelines that are now part of the MSPS' official policy. This contributed to increasing local ownership of malaria control at different levels of the decentralized health system.

In Central America we used an innovative regional approach to maximize the impact of limited resources. Links Media identified areas of common need based on country communication assessments. To the extent possible, we tied malaria elimination to national priorities such as poverty reduction and economic development. We helped to enhance the role and engagement of non-traditional partners such as civil society organizations in achieving malaria elimination by contributing their own resources along with public funds. Lastly, we secured country buy-in to focus on special groups such as migrants, indigenous and Afro-descendant populations when communicating about malaria.

Strong host country commitment in Brazil led to the NMCP's re-activation of an education, communication, and social mobilization component for malaria control that had been largely overlooked and under-resourced since its establishment in 2003. The Brazilian NMCP invested its own funds in strategy development and workshops for communication in FY 2015. Links Media's support helped to catalyze an environment for greater popular participation and transparency of efforts to control malaria.

Countries lacking a specific liaison for communication and advocacy related to malaria present a challenge for the strategy development process, and the time needed to share the recommendations of the strategy with key stakeholders. For example, Links Media delivered a malaria communication strategy for Ecuador in FY 2014, but follow-up on implementation has been difficult because personnel were reassigned due to health system reform. NMCPs or MOHs need to designate appropriate liaisons to carry implementation of the communication strategies forward; these should ideally be career public servants rather than consultants. Links Media has recommended to MOHs that having such a liaison is vital for sustainability and for keeping malaria on the public policy agenda.

III. Activities and Products

During the performance year from October 1, 2014 – September 30, 2015, Links Media provided strategic-level advising in the area of communication as well as targeted operational support to USAID and AMI partners.

Essential Activities

Links Media carried out numerous project-related activities, as requested by countries and implementing partners and approved by the USAID COR.

Activities were carried out in the following categories according to Links Media's scope of work:

a) **Dissemination and Communication of information –** implementation or support for implementation of activities to influence policy changes and implementation of malaria prevention and control in Latin America and the Caribbean; to mobilize support to malaria prevention and control in the AMI geographic areas of interest; and to convey critical information about AMI to various audiences, including but not limited to host country governments, cooperation agencies, donors, key decision-makers, media, researchers, academic institutions, healthcare professionals, and the general public.
b) **Technical Assistance** – provision of technical assistance (TA) to USAID, implementing partners, and selected country-level partners to strengthen capacity for communication and outreach planning; as well as to support the design and/or implementation of selected strategies and/or activities and materials to inform and change behaviors among health professionals, care providers, policy makers, communities at risk for malaria infection, and other stakeholders in malaria prevention and control.
c) **Product Development** – writing and editorial services to develop publications and other communication materials needed by the partners in achieving AMI objectives.
d) **Graphic Design** – provision of services including but not limited to graphic design and layout, production planning, desktop publishing, and printing and/or production of materials in electronic formats.

Activities were oriented towards achieving AMI Intermediate Results (IR), as depicted in the Figure 1 (below).

Figure 1: Communication of the Evidence Base to Achieve USAID's Strategic Objective for Malaria Control

Key Deliverables

Communication Technical Assistance Provided to Countries

In follow-up to the seven (7) national and regional communication strategies for malaria that were delivered in PY1, Links Media focused PY2 work on the provision of technical assistance (TA) to AMI-supported countries to accompany implementation. TA deliverables included the following activities and products:

- In October 2014, Links Media provided communication technical assistance for the development of a National Strategic Plan for Malaria Elimination in Guatemala, and later provided graphic design support on five (5) instructional guides for decentralized health professionals in Guatemala with MSH/SIAPS (September 2015).
- Links Media participated in the regional follow-up meeting on artemisinin resistance in the Guiana Shield sub-region of South America in Paramaribo, Suriname (November 2014).
- During an AMI partners' site visit to Iquitos, Peru in March 2015, Links Media advised on communication approaches for collaborating with indigenous populations more effectively and improving coordination between national and local-level health actors.
- Provided technical guidance for the Brazilian NMCP to develop a national social mobilization strategy for malaria with special approaches for reaching *garimpeiros*, riverine and indigenous populations (June 2015).
- Together with the Colombian Ministry of Health and Social Protection, Links Media drafted a policy paper to inform decentralized decision-makers about the benefits of supporting behavior change communication interventions for malaria control (April-August 2015).
- From July-September 2015, Links Media facilitated communication between Guyana's Vector Control Services (VCS) and other malaria stakeholders, namely the Ministry of Indigenous Peoples' Affairs and the US Peace Corps, regarding the implementation of the country's malaria communication strategy.
- Links Media attended a September 2015 "Science of Eradication: Malaria" regional training course in Brazil, where we helped countries' malaria program managers and researchers use communication and advocacy more effectively to advance their goals.

Communication Strategies

Links Media's annual work plan foresaw the development of nine communication strategies during PY1: a dissemination and communication strategy for AMI technical and country partners, six country communication strategies for South American countries' NMCPs, a regional communication strategy for the bloc of Central American countries, and a communication strategy to support the regional response to the possible emergence of artemisinin resistance. Seven of these strategies were delivered in PY1, with additional updates made in PY2. Significant updates were made to the Central America regional strategy, in light of the countries' reorientation away from malaria control in favor of malaria elimination. In addition, Links Media completed the two outstanding communication strategies for Peru and Suriname during PY2.

The intermediate milestones for strategic planning to strengthen communication for malaria control were outlined as:

- Initial assessment with countries completed (virtual)
- Follow-up calls and visits conducted
- Strategy for each country drafted
- Strategy shared with NMCP for input
- NMCP feedback received
- Country strategies finalized and delivered to USAID and partners

These steps were followed for the development of national malaria communication strategies with Peru and Suriname, including multiple virtual and in-person meetings with both countries' NMCPs.

For the most part, Links Media's work progressed from communication strategy development to planning and technical support for communication strategy implementation in PY2. Updates to the previously developed country communication plans were made as necessary; however, the focus for most countries was on implementation.

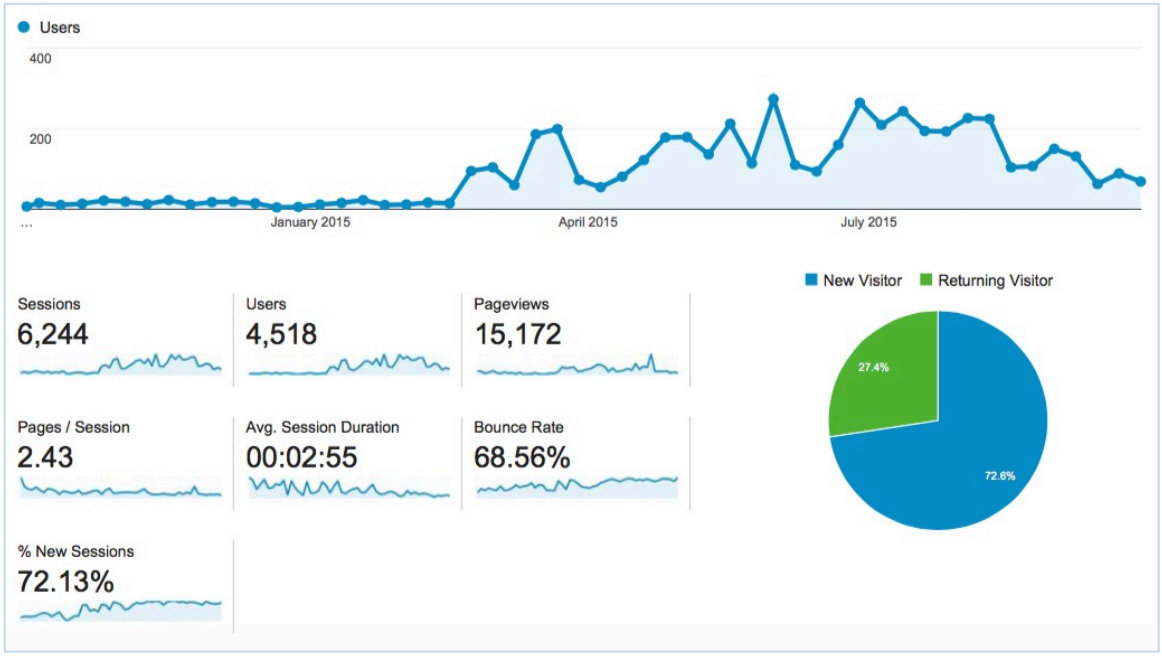
An annual work plan to accompany the AMI dissemination/communication strategy (*Deliverable 1.2*) was completed for FY 2016 and circulated internally to AMI implementing partners in September 2015. This work plan included key dates for quarterly bulletin, annual report, and scientific conference submissions and sought to align partners' activities to effectively disseminate and communicate information about malaria prevention and control.

Information Dissemination

On a weekly basis in FY 2015, Links Media updated the AMI website with relevant news, publications, and events (*Deliverable 3.2*) at the official project URL (usaidami.org). Good knowledge management practices were applied to maintain a robust central repository of updated manuscripts, data, reports, and other important materials on the website. In July 2015, the website was improved to enable easier navigation for all devices including mobile phones and tablets. This allowed users in the field to have easier access to resources and AMI information. In September 2015, Portuguese- language website pages were introduced, including "About AMI," "AMI Countries," and "Technical Areas," to complement the existing pages in English and Spanish. Google Analytics is the measurement tool embedded on the site that allows website usage results to be tracked, analyzed, and reported to USAID on a quarterly basis.

As part of Links Media's management of AMI social media platforms, Links Media continues to promote the project website at strategic intervals, as well as upon sending electronic alerts to the AMI email list. Multiple opportunities were used to increase awareness of the site during in-country meetings, including the AMI/RAVREDA partners meeting in March 2015 Rio de Janeiro, Brazil. However, peak website visits during the performance year occurred in conjunction with social media engagement around Malaria Day in the Americas on November 6, 2014, the release of the World Malaria Report in December 2014, World Malaria Day in April 2015, and other regional and global events. Website viewership also increased following the distribution of each AMI quarterly bulletin. In February 2015, the website experienced a sharp increase in visitors in comparison to previous months. This trend has continued with peaks from the end of May 2015 through the middle of August 2015 as a result of targeted social media outreach.

Figure 2: Daily usage of the usaidami.org project website



During FY 2015, digital engagement on the AMI website increased significantly with 6,244 sessions, a nearly 350% increase from the previous year. According to website metrics, returning visitors constituted 27.4% of the 4,518 distinct users, showing a reverse in user behavior from the previous year, when returning visitors accounted for nearly 66% of the 573 distinct visitors. We are able to determine that over 1,200 distinct visitors were returning visitors during FY 2015, a much larger number than the approximately 378 returning visitors from the previous year.

Geographic coverage continues to be broad, and during FY 2015 the website had visits from all countries in the LAC region, as demonstrated on the map below. The United States remained the country with the highest number of visitors. Other regions also had visitors to the website, including countries in Africa, Asia, and Europe. This indicates a high likelihood that reach and exposure have expanded beyond the originally intended LAC region, as a result of wider dissemination of malaria prevention and control information produced with AMI support.

Figure 3: Geographic reach of AMI project website

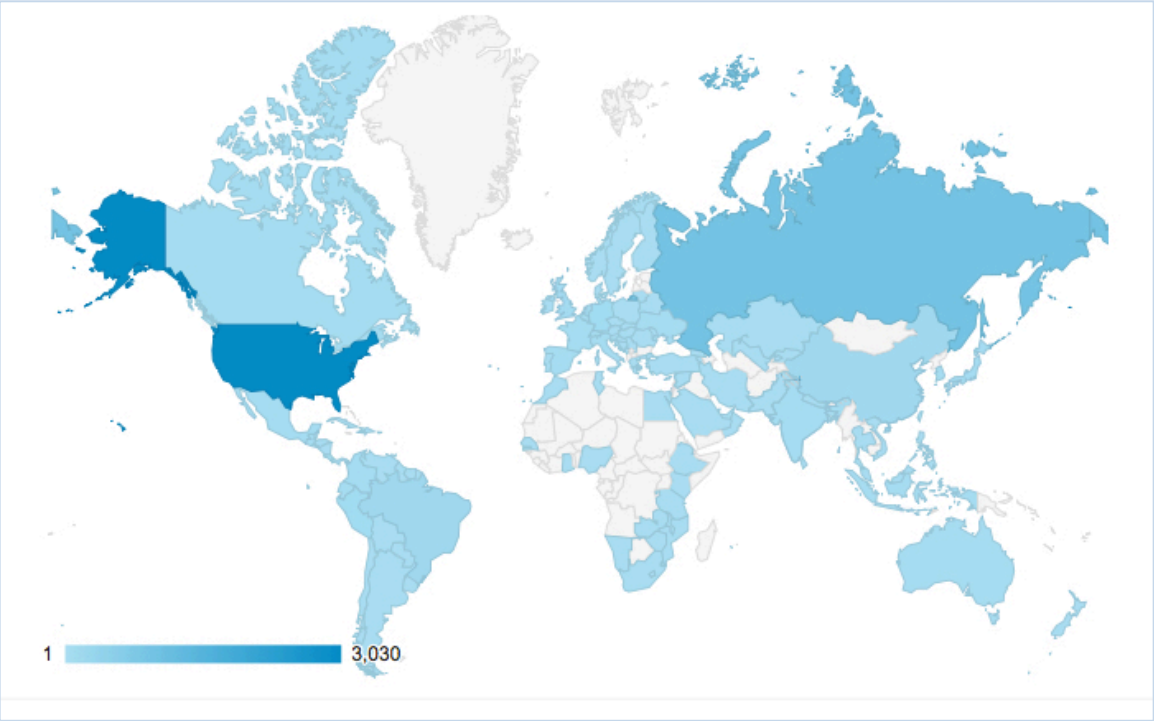


Figure 4: Countries with the most website sessions and users

Country	Acquisition			Behavior			Conversions		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	6,244 % of Total: 100.00% (6,244)	72.60% Avg for View: 72.13% (0.64%)	4,533 % of Total: 100.64% (4,504)	68.56% Avg for View: 68.56% (0.00%)	2.43 Avg for View: 2.43 (0.00%)	00:02:55 Avg for View: 00:02:55 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	$0.00 % of Total: 0.00% ($0.00)
1. United States	3,030 (48.53%)	53.96%	1,635 (36.07%)	51.85%	3.25	00:05:04	0.00%	0 (0.00%)	$0.00 (0.00%)
2. Russia	937 (15.01%)	90.39%	847 (18.69%)	97.65%	2.09	00:00:06	0.00%	0 (0.00%)	$0.00 (0.00%)
3. (not set)	530 (8.49%)	99.62%	528 (11.65%)	91.32%	1.05	00:00:16	0.00%	0 (0.00%)	$0.00 (0.00%)
4. Brazil	174 (2.79%)	68.39%	119 (2.63%)	64.37%	1.91	00:02:48	0.00%	0 (0.00%)	$0.00 (0.00%)
5. China	146 (2.34%)	99.32%	145 (3.20%)	89.73%	1.02	00:00:18	0.00%	0 (0.00%)	$0.00 (0.00%)
6. United Kingdom	101 (1.62%)	81.19%	82 (1.81%)	66.34%	2.35	00:02:03	0.00%	0 (0.00%)	$0.00 (0.00%)
7. Germany	93 (1.49%)	100.00%	93 (2.05%)	90.32%	1.03	00:00:11	0.00%	0 (0.00%)	$0.00 (0.00%)
8. Peru	85 (1.36%)	77.65%	66 (1.46%)	69.41%	1.76	00:01:43	0.00%	0 (0.00%)	$0.00 (0.00%)
9. Mexico	75 (1.20%)	81.33%	61 (1.35%)	70.67%	2.05	00:02:49	0.00%	0 (0.00%)	$0.00 (0.00%)
10. Japan	71 (1.14%)	100.00%	71 (1.57%)	85.92%	0.97	00:00:14	0.00%	0 (0.00%)	$0.00 (0.00%)

Pre-existing Facebook, Twitter, Instagram, and LinkedIn accounts grew during the performance year. The Facebook group page remains to be the most active channel, where users from across the region share articles, news, and other resources through an organic process, serving as an online Community of Practice. In addition, two additional channels were employed in the past year. Storify was used to document the social media outreach during the 2014 Malaria Day in the Americas event with nearly 200 views. As of the first quarter of FY 2015, the Amazon Malaria Initiative has its own page on Wikipedia.

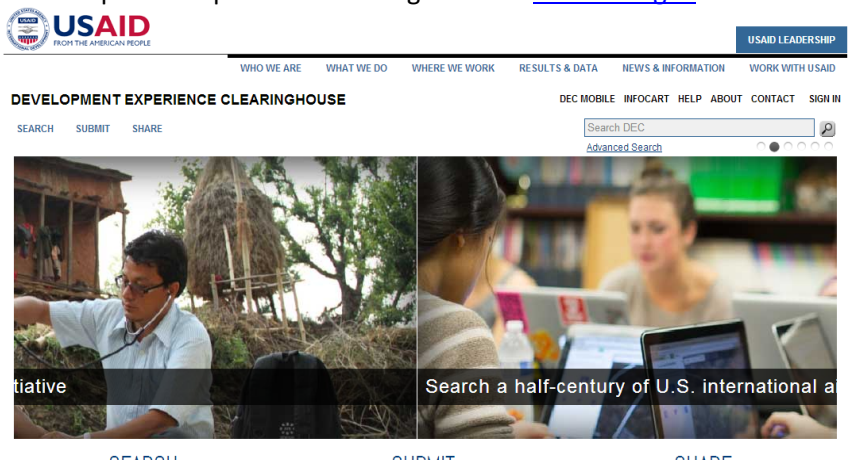
Social Media Platform	Following by End of Q4 FY14	Following by End of Q4 FY15	% Change
Facebook institutional page	546	586	7%
Facebook group page	365	383	5%
Twitter	635	821	29%
LinkedIn group page	28	47	68%
Instagram	218	230	5.5%

Electronic alerts were issued via email as a way to make AMI technical partners, NMCP staff, and individuals at relevant external organizations aware of new website content and notable events. Alerts were issued on January 20, 2015 and June 18, 2015; the distribution list included over 400 recipients by end of FY 2015. Links Media used MailChimp statistics to track the percentage of recipients who opened the alerts or clicked on links. We also tracked the geographic reach of the electronic alerts; the United States, Switzerland, Brazil, Peru, Guatemala, Honduras, and Ecuador were the top locations where recipients opened email alerts.

Four quarterly news bulletins were developed and distributed by Links Media to increase information-sharing among AMI partners. Bulletin updates were obtained from all implementing partners, and from selected external malaria stakeholders. Distribution of the bulletins was done via an email listserve, the project website, and social media. Bulletins detailed partners' activities, achievements, upcoming events, and global malaria news each quarter. The bulletins also served as a tool for partners to reach external audiences including the international donor community, decision-makers in participating AMI countries, and the general public. As a periodic deliverable, the bulletins effectively summarized the partners' disparate but complementary lines of action. As a result, Links Media received requests from GFATM and UCSF's Malaria Elimination Initiative to exchange information with AMI on events and products. This product issued on behalf of USAID/AMI helped to raise awareness, promote timely coordination regarding activities, and provide the bigger picture to partners regarding the cumulative effect of their parallel technical interventions.

Links Media also disseminated information products developed with support from AMI on international development sharing platforms including:

- Elsevier's Malaria Nexus— malarianexus.com
- Institute of Development Studies' Eldis— eldis.org
- International Finance Corporation's CommDev— commdev.org
- United Nations Office for the Coordination of Humanitarian Affairs (OCHA)'s ReliefWeb— reliefweb.int
- United Nations Children's Fund (UNICEF)'s DevInfo— devinfo.org
- USAID's Development Experience Clearinghouse— dec.usaid.gov



- Wikipedia - en.wikipedia.org/wiki/Amazon_Malaria_Initiative

Links Media's annual work plan included the development of two (2) new fact sheets (*Deliverable 3.8*): one on Malaria Elimination Frequently Asked Questions (FAQs) and another on Malaria in Low-Incidence Settings. These were completed with input from PAHO/WHO. Due to an updated WHO definition, the previously completed Antimalarial Medicine Resistance fact sheet underwent further revisions in Quarter 1 of FY 2015; they were subsequently translated into Spanish and Portuguese in time for dissemination in January 2015.

Links Media attended the AMI/RAVREDA Annual Evaluation Meeting and Semi-Annual Steering Committee Meeting in Rio de Janeiro, Brazil, and participated in an international conference to communicate the evidence base for malaria prevention and control. SIAPS Program staff presented an AMI poster that Links Media helped to conceptualize and develop at the American Society for Tropical Medicine and Hygiene (ASTMH) 63rd Annual Meeting in November 2014. In addition, based on our interviews to assess the communication and advocacy activities of NMCPs in the region, Links Media developed an abstract on the role of communication and advocacy for malaria elimination in LAC. The abstract was submitted in April 2015 and was accepted as a poster presentation at the ASTMH 64th Annual Meeting in October 2015. Participation in the meetings helped to establish better communication and coordination with UCSF's Malaria Elimination Initiative, CLAIM, and other organizations.

Stakeholder Engagement and Mobilization of Support

In alignment with new strategies for engaging with stakeholders and interested parties, including guidance from the USAID Bureau for Global Health Communication team, Links Media has reached out to AMI partners and stakeholders to expand support for malaria prevention and control efforts in the LAC region by using the following social media channels:

- Twitter feed with 821 followers
- Facebook fan page with 586 likes
- Interactive Facebook group with 383 members
- Email list serve with approximately 460 recipients
- Micro-targeting via the AMI LinkedIn Group, with 47 members
- Project website at usaidami.org with 4,518 unique users during FY 2015

Internal audiences reached through these channels included many MOH and PAHO/WHO staff. External audiences reached consist of public opinion leaders, journalists, civil society groups and professional associations, health sciences students, and the general public. Recent research has shown that social media users are more politically engaged as compared to other Internet users.[1] Thus, the platforms represent an important contribution to fostering a more inclusive policy process. Social media has proven to be a valuable tool to be able to disseminate information to influential voices and to capture information on malaria in the region.

[1] Pew Research Internet Project. URL: http://www.pewinternet.org/2012/10/19/social-media-and-political-engagement/. Accessed on October 20, 2014.

Media Outreach and Monitoring

In order to put malaria on the public agenda, Links Media used six (6) media outreach opportunities during FY 2015 (*Deliverable 3.6).* On World Malaria Day 2015, Links Media published a bilingual news release on the AMI project website about the need for more research on malaria in pregnancy in Latin America and the Caribbean in line with Roll Back Malaria Partnership's global theme for World Malaria Day. The AMI news release disseminated PAHO/WHO and CDC recommendations on addressing malaria in pregnant women in low-incidence settings, which differ from approaches recommended for sub-Saharan Africa. The remaining media outreach included:

- A USAID media advisory issued in November 2014 about the PAHO/WHO forum for Malaria Day in the Americas
- A news release developed with USP/PQM in November 2014 on the workshop to identify sustainable mechanisms for regional collaboration on medicine quality
- Pitching of interviews with NAMRU-6 and CDC about the molecular analysis of a malaria outbreak in Tumbes, Peru, which resulted in Spanish-language coverage on SciDev.net
- Pitching a story on the results of a study of HRP2 gene deletion patterns in Suriname and Guyana
- Dissemination of a PAHO/WHO news release in April 2015 on the call for nominations for Malaria Champions of the Americas 2015

Links Media pitched to journalists at selected industry publications with messages about the regional, collaborative response to malaria control by USAID implementing partners and the countries of the Americas. As a result, articles were placed in *The Pharma Letter* and *SciDev.net*.

Eighteen (18) media mentions of AMI/RAVREDA or malaria prevention and control efforts in the Americas were tracked in a sampling of electronic media outlets in English, Spanish, and Portuguese. Of these articles, two (2) were placements by AMI partners Links Media and USP/PQM. The remaining news items varied in tone, depending on whether malaria incidence was experiencing an upward or a downward trend at any given time in the country where the media outlet was based. See Annex 1 for hyperlinks to articles.

Translation, Editorial, and Graphics Support

Publications that were translated into additional languages included a USP/PQM success story on medicine quality assurance in Colombia, an updated AMI project brochure, and two fact sheets on Antimalarial Medicine Resistance and Malaria Elimination FAQs. Links Media also provided editorial, translation, and graphic design support to two SIAPS Program success stories:

- Decentralized technical assistance improves antimalarial supply management in Loreto, Peru
- Certification of the regional warehouse in Loreto

The first of these was written in Spanish, and Links Media performed copy editing and translation into English. Graphic support was provided for both success stories, which were later disseminated on the AMI and SIAPS program websites, social media, as well as via an electronic alert to the AMI listserve.

Following the SIAPS Program's extensive field validation of a set of four guidelines and instructional materials in Guatemala, Links Media collaborated with SIAPS and the Guatemalan NMCP to make editorial and graphic design modifications to the materials. Illustrations on the materials were made

more culturally appropriate, and one of the four previously developed materials had to be converted into two documents. Distinct content had to be presented for health districts and for health centers because of significant differences in the target audiences, who were either administrative or clinical personnel. The purpose of the materials was to support training and the day-to-day performance of case management and pharmaceutical management for malaria by local personnel, including health professionals and community volunteers. Trainings of administrative personnel, clinical personnel, and community volunteers in Guatemala were scheduled for the first quarter of FY 2016.

Quarterly bulletins: AMI's third quarterly bulletin (Volume 2, Issue 3) of FY 2015 had 699 direct downloads from the AMI project website and social media

Links Media provided photography from the AMI collections for use in Roll Back Malaria's *Action and Investment to defeat Malaria (AIM) 2016-2020* document upon request.

AMI Annual Report

The AMI Annual Report for FY 2014 was completed in October 2014 *(Deliverable 3.12*) and covered the progress of AMI implementing partners PAHO/WHO, the Centers for Disease Control and Prevention (CDC), SIAPS, USP/PQM, and Links Media. Writing and editing was carried out in a collaborative fashion, with input from AMI implementing partners on their respective technical sections (i.e. diagnosis and treatment, pharmaceutical supply chain, antimalarial medicine quality, antimalarial efficacy and resistance monitoring, vector surveillance and control, and communication). The complete umbrella report was shared with all AMI implementing partners via Google Drive in July 2015.

The status of all Links Media deliverables scheduled for FY 2015 is presented below, whether deliverables consisted of products, essential activities, and TA provided.

Table 1: Status of Links Media Work Plan Deliverables

Deliverable	Status
1.1 - Overall AMI dissemination and communication strategy work plan.	Completed.
1.2 - Annual AMI Communication and Information Dissemination Strategy and 2014-2015 Work Plan.	Completed.
2.1 - 6 communication strategies, one for each of the Amazon countries	
Brazil	Completed.
Colombia	Completed.
Ecuador	Completed.
Guyana	Completed.
Peru	Completed.
Suriname	Completed.
2.2 - 1 communication strategy for Central American countries (Belize, Guatemala, Honduras, Nicaragua, Panama).	Completed.
2.3 - 1 communication strategy to support the response to artemisinin resistance in the Americas.	Draft completed.
3.1 - Collateral materials for 1 special event or activity.	Completed.
3.2 - Weekly and monthly AMI website updates.	Completed.
3.3 - Electronic and printed alerts for promotion of AMI and its materials.	Completed.
3.4 - At least 4 technical documents disseminated through the AMI Website, electronic alerts, AMI e-newsletter, media, etc.	Completed.
3.5 - 4 quarterly bulletins distributed on website and electronic mailing list.	
Q1	Completed.
Q2	Completed.
Q3	Completed.
Q4	Completed.
3.6 – Up to 4 press releases in three languages for media placement and coverage of published technical documents related to AMI's activities and achievements targeted to partners, stakeholders, and policymakers.	4 completed: 1) USP/PQM Regional Workshop in Lima, Peru 2) World Malaria Day 2015 3) Results molecular analysis of Tumbes, Peru outbreak 4) Results of Histidine-Rich Protein 2 (HRP2) study

3.7 - 4 updated fact sheets:	
3.7.a. - Overview of Initiative	Completed.
3.7.b. - Antimalarial Medicine Resistance	Completed.
3.8 – 2 new fact sheets:	
3.8.a. –Malaria Control in Low-Incidence Settings	Completed.
3.8.b. –Malaria Elimination FAQs	Completed.
3.9 – 1 updated AMI brochure.	Completed.
3.10 – Semi-annually updated portfolio of AMI products -- Portfolio Review #1	Completed.
Portfolio Review #2	Completed.
3.11 – Participation in and/or assistance with planning of:	
3.11.a. – At least 2 scientific conferences & lectures – ASTMH Annual Meeting, Brazil National Malaria Research Meeting	Completed.
3.11.b. – International partners' meeting	Completed.
3.12 – Research and compile annual initiative-wide report	Completed.
3.13 - Communication tools & templates.	
3.13.a. - Reading list on elimination	Completed.
4.2 - TA activities conducted with partners	
4.2.a. - Provide TA at Guatemala workshop on the National Strategic Plan for Malaria Elimination	Completed.
4.2.b. - Contribute to communication component of technical meeting in Loreto, Peru	Completed.
4.2.c. - Provide documentation of success stories and lessons learned to Brazilian NMCP to inform development of a social mobilization strategy for malaria	Completed.
4.2.d. – Participate in technical meeting on artemisinin resistance in South America held in Suriname, advise on SBCC and policy-level approaches	Completed.
4.2.e. – Explore US Peace Corps collaboration on Guyana communication strategy implementation	Completed.
4.3 – Reports on TA provided to AMI partners	Completed. Included in Q3 and Q4 reports.
5.1 - Translation of new technical publications into 2 additional languages. – Antimalarial Medicine Resistance Fact Sheet	Completed.

Updated AMI brochure	Completed.
5.2 – Editorial, translation, and graphics support for 2 new.success stories	Completed. Original deliverable (editorial support to 2 technical manuscripts) was replaced due to evolving partner needs.
5.3 – Graphic design support for 5 malaria guidelines and self-instructional guides	Drafts completed. Original deliverable (submission of a scientific journal article) was replaced due to evolving partner needs.

IV. Monitoring and Evaluation

Links Media contributed to all of the AMI IRs in FY 2015. Our work significantly advanced two out of the three IRs that are of vital importance at this time: disseminating the scientific evidence-base for malaria control to inform decision-makers (IR2), and opening up the policy process to include all relevant stakeholders. We have achieved this by developing national and regional-level communication strategies, creating messages with clear calls to action for different target audiences, and engaging with an array of new actors.

IR 1 – Evidence base increased

Links Media used a structured interview guide to conduct communication needs assessments with National Malaria Control Program (NMCP) staff in the 11 countries supported by AMI. These country-specific communication assessments were an essential component of the formative research that was conducted to develop useful communication strategies for malaria control (*Deliverables 2.1* and *2.2*, per the Links Media work plan). In addition to strategic planning for communication, the assessment results were used to develop an abstract that was accepted for a poster presentation at ASTMH in October 2015. The abstract was entitled, "So you say you want elimination? Using communication and advocacy to advance malaria elimination in the Americas."

IR 2 – Evidence base communicated and used

Links Media promoted awareness and use of the evidence base through a variety of communication channels designed to target decision-makers in AMI-supported countries. These included traditional and digital media, virtual meetings, in-person events, and policy papers. We also conceptualized numerous information products in collaboration with other partners, which we subsequently produced and disseminated to stakeholders via the same array of communication channels. These included fact sheets on antimalarial medicine resistance, malaria elimination, and low-incidence settings (*Deliverables 3.7 and 3.8*), an updated project brochure in English, Spanish, and Portuguese (*Deliverables 3.9 and 5.1*), and quarterly bulletins detailing AMI partners' activities (*Deliverable 3.5*).

We conducted outreach to the media to disseminate the scientific findings of AMI partners' operational research, which targeted audiences such as donors and cooperation agencies, ministry of health decision-makers, researchers, and health professionals. For example, we pitched to journalists with the specialized science and development website SciDev.net about the molecular epidemiology of a malaria outbreak in the Tumbes Region of Peru, and about regional patterns of HRP2/HRP3 gene deletion in *P. falciparum* parasites. This resulted in Spanish-language news coverage of evidence that was originally published in English, increasing the likelihood that decision-makers in the LAC region would become aware of use the study recommendations. When pitching stories about operational research, we always specified the relevance to programmatic issues such as diagnosis, treatment, disease surveillance, and

response to outbreaks. In our interactions with research scientists from the region, we coached them to do the same.

IR 3 - More inclusive and better informed policy process promoted

Embedded within the national malaria communication strategies that Links Media developed together with the NMCPs were approaches to reach new stakeholder audiences in AMI-supported countries. After technical assistance from Links Media, Brazil's NMCP moved forward with the development of a social mobilization strategy for malaria by considering a whole-of-society approach to improve and sustain malaria prevention, diagnosis, and treatment among priority populations. The NMCP invited the Indigenous Health Secretariat, the National Land Reform Institute, the Ministry of Education, Ministry of the Environment, and the Ministry of Cities of Brazil to participate in a social mobilization strategy design workshop planned for October 2015. In Guyana, Links Media helped the NMCP, known as Vector Control Services, to reach out to the US Peace Corps, NGOs, and the Ministry of Indigenous Peoples' Affairs to collaborate on the implementation of its malaria communication strategy. Communication strategies for Central America and Peru also featured the private sector and civil society organizations prominently as community-level actors with which the NMCPs should engage.

Links Media also broadened AMI's international network in order to reach new audiences with messages about malaria, as reflected by growing numbers of social media followers and digital engagement statistics. Links Media contributed to increased communication with relevant partners and stakeholders by using a variety of channels to keep them apprised of state-of-the-art guidance for malaria control. We curated and distributed relevant third-party content from key partners such as the United States President's Malaria Initiative, Roll Back Malaria, and the World Health Organization. We also created and disseminated new content to inform target audiences at the international, regional, and national levels about updated documents and publications by AMI partners. Noteworthy new connections with international stakeholders included:

- Carter Center
- Clinton Health Access Initiative (CHAI)
- Latin American Malaria Research Center (CLAIM)
- EMMIE Regional Civil Society League for Malaria
- Johns Hopkins University
- Malaria Zero Initiative to Eliminate Malaria on the Island of Hispaniola
- PlusPetrol
- Roll Back Malaria's Communication Community of Practice
- UCSF Global Health Group's Malaria Elimination Initiative
- United States Peace Corps

The following table presents progress in terms of outputs, benchmarks achieved and performance standards completed as compared to Links Media's annual work plan (activities planned vs. activities achieved) for 2014-2015.

Table 2. AMI Links Media Malaria M&E Indicators

		Completed/Target (Fiscal Year)		
Task	Indicator Name	2014	2015	2016

T1	Completed dissemination/communication plan includes strategies to target new audiences and build sustainability (e.g., institutionalization) after AMI period	1/1	1/1	1
	Completed dissemination/communication plan considers gender roles, indigenous populations, populations of African descent, and people with disabilities	1/1	1/1	1
T2	Number of completed dissemination/communication plans for Amazon countries that include a strategy to target new audiences, as well as a strategy to build sustainability	4/6	6/6	6
	Number of completed dissemination/communication plans for the group of Central American countries that include a strategy to target new audiences, as well as a strategy to build sustainability	1/1	1/1	1
	Number of dissemination/communication plans that consider gender roles, indigenous populations, populations of African descent, and people with disabilities	5/7	7/7	7
	Number of countries that have implemented their dissemination/communication strategies developed with assistance from Links Media (as evidenced by qualitative activity review)	0/2	4/6	11
T3	Number of fact sheets developed or updated	2/6	3/2	2
	Number of press releases issued (English, Spanish, and Portuguese)	5/8	4/4	1
	Number of media mentions of AMI (English, Spanish, and Portuguese)	10/10	18/10	2
	Number of AMI annual achievement reports produced	0/0	1/1	1
	Number of quarterly AMI bulletins distributed	4/4	4/4	1
	AMI website updated weekly	52/52	52/52	12
T4	TA provided to USAID and AMI partners to aid in the design of dissemination/communication strategies and/or in the implementation of activities	3/3	7/2	2
	Number of institutions with improved decision making capacities as a result of USG assistance	**9/8**	**13/10**	**11**
	Number of people trained with USG funds in malaria treatment or prevention	**NA**	**NA**	**NA**
	Number of partners for which Links Media has tracked roles, status, and involvement in communications planning, implementation, and evaluation activities and interventions by gender	5/7	7/7	7
	Number of countries that show an increased adoption of products, materials, or approaches acquired during Links Media TA	1/2	7/4	11
T5	Number of completed priority dissemination/communication materials developed by AMI partners that have been translated into other AMI languages (English, Spanish, and Portuguese)	1/2	5/2	1

	Number of scientific articles submitted for publication	0/1	0/1	1

V. Challenges to Implementation and Solutions

Malaria-endemic countries require additional support to understand how to use the communication strategies that were developed with USAID assistance. They also require capacity building to implement, evaluate, and develop social and behavior change communication (SBCC) and health promotion interventions, advocacy and stakeholder engagement, social mobilization, and media outreach. Countries must also mobilize additional resources for health communication in order to take full advantage of the United States Government's investment in malaria communication interventions and make the strategies a reality.

Communication, information dissemination, and advocacy have in recent years been treated as cross-cutting themes in malaria work. However, having a specific technical line item for communication in the AMI/RAVREDA intervention framework would benefit countries by underscoring its importance and allowing communication interventions to play a more significant role in integrated malaria efforts at the country level. With many of the health systems in the LAC region stronger than ever, now is the time to bolster community-level outreach to increase utilization of public health services and uptake of prevention methods such as indoor residual spraying and LLIN use.

VI. Financials

Report on accrued expenditure will be submitted separately.

VII. Environmental Compliance

All activities under the contract fall within those covered by the categorical exclusion as per ETD LAC-IEE-11-60.

Annex 1: Media Coverage of Malaria Prevention and Control in the LAC Region

Below is a sampling of unique media coverage of malaria that appeared in AMI-supported countries during FY 2015.

October 3, 2014

Lacen capacita indígenas para agilizar diagnóstico da malária nas aldeias
http://chicoterra.com/2014/10/03/lacen-capacita-indigenas-para-agilizar-diagnostico-da-malaria-nas-aldeias/

October 7, 2014

Pros & Contras http://proycontra.com.pe/2014/10/07/lo-que-la-region-loreto-necesita/comment-page-1/

October 11, 2014

La Región – Diario Judicial de Loreto http://diariolaregion.com/web/2014/10/11/laboratoristas-se-capacitan-en-diagnostico-microscopico-de-la-malaria/

October 23, 2014

Jornal Opção – Pela primeira vez na história, casos de malária confirmados podem ter surgido em Goiânia http://www.jornalopcao.com.br/ultimas-noticias/pela-primeira-vez-na-historia-casos-de-malaria-confirmados-podem-ter-surgido-em-goiania-18633/

November 6, 2014

TVC Hoy Mismo al Mediodía – television Interview with Dr. Engels Banegas, Honduras NMCP director.
Honduras espera erradicarla el paludismo o malaria para el 2020
https://www.youtube.com/watch?v=0XqDfMUDLmM

November 26, 2014

Initiative to support and enhance medicine quality assurance in Latin American/Caribbean. http://www.thepharmaletter.com/article/initiative-to-support-and-enhance-medicine-quality-assurance-in-latin-american-caribbean

December 22, 2014

Minsa reporta 766 casos de malaria http://laestrella.com.pa/panama/nacional/minsa-reporta-766-casos-malaria/23830243

February 11, 2015

Malaria cases down by half – Vector Control Unit http://www.guyanatimesgy.com/2015/02/11/malaria-cases-down-by-half-vector-control-unit/

February 15, 2015

Las cinco "plagas de Egipto" azotan a Honduras http://www.laprensa.hn/honduras/795155-410/las-cinco-plagas-de-egipto-azotan-a-honduras

February 26, 2015

TVGlobo – television report. Rio de Janeiro já tem 14 casos de malária este ano http://globotv.globo.com/rede-globo/bom-dia-brasil/v/rio-de-janeiro-ja-tem-14-casos-de-malaria-este-ano/3994241/

March 18, 2015

Secretaria de Saúde confirma 19 casos de malária no Rio http://g1.globo.com/rj/regiao-serrana/noticia/2015/03/secretaria-de-saude-confirma-19-casos-de-malaria-no-rio.html

April 23, 2015

25 millones de colombianos están en riesgo de morir por Malaria
http://www.vanguardia.com/entretenimiento/salud/308666-25-millones-de-colombianos-estan-en-riesgo-de-morir-por-malaria

April 25, 2015

IETS da respuesta a las preguntas más comunes sobre la Malaria
http://hsbnoticias.com/noticias/ciencia/salud/iets-da-respuesta-las-preguntas-mas-comunes-sobre-la-malar-134745

May 14, 2015

Un arma inesperada contra la malaria: ¡viagra!
http://www.elespectador.com/noticias/salud/un-arma-inesperada-contra-malaria-viagra-articulo-560682

June 16, 2015

Hidroeléctrica amazónica deja rastro de salud para población
http://www.ipsnoticias.net/2015/06/hidroelectrica-amazonica-deja-rastro-de-salud-para-poblacion/

June 19, 2015

Epidemiología molecular: eficaz ayuda contra la malaria. http://www.scidev.net/america-latina/malaria/noticias/epidemiologia-molecular-eficaz-ayuda-contra-la-malaria.html

September 4, 2015

Pedro Bial está com malária, mas já se recupera em casa http://f5.folha.uol.com.br/celebridades/2015/09/1677892-pedro-bial-contrai-malaria-em-viagem-a-santos.shtml

September 12, 2015

Salud anuncia rebaja de casos de malaria http://www.elheraldo.hn/pais/879315-214/salud-anuncia-rebaja-de-casos-de-malaria

USAID
FROM THE AMERICAN PEOPLE

AMAZON MALARIA INITIATIVE

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Photo: PAHO/WHO

Pan American Health Organization

World Health Organization
Regional Office for the Americas

CDC
SAFER·HEALTHIER·PEOPLE

SIAPS
Systems for Improved Access to Pharmaceuticals and Services

USAID
FROM THE AMERICAN PEOPLE
USP
PROMOTING THE QUALITY OF MEDICINES

Global Malaria News

K13 Molecular Marker for Artemisinin Resistance

K13 gene monitoring holds promise as a molecular surveillance tool in light of concerns that the Guyana Shield sub-region may be seeing early signs of reduced susceptibility to artemisinin derivatives. Parasite resistance to artemisinin poses a challenge for malaria control in Southeast Asia, and is a threat in the Americas and in Africa. Scientists have needed a molecular marker to help fully understand the spread of artemisinin resistance in the field, but none were identified until recently. Now scientists have been able to sequence the genomes of resistant P. falciparum parasites from across Southeast Asia and Africa to identify mutations in the PF3D7_1343700 Kelch propeller domain (K13) strongly associated with delayed parasite clearance after treatment with artemisinin. These K13 mutations have been most prevalent in Cambodian provinces with the spread of artemisinin resistance. With a molecular marker established for artemisinin resistance, malaria control organizations will be able to conduct more effective surveillance and can prevent resistance from spreading. K13 sequencing has not yet been tested with parasite strains in Latin America.

Photo: PAHO/WHO

Recommended reading:

- Ashley, EA et al. July 2014. Spread of Artemisinin Resistance in Plasmodium falciparum Malaria. NEJM. 371(5): 411-423. URL: http://www.nejm.org/doi/full/10.1056/NEJMoa1314981
- Carrara, VI et al. March 2013. Malaria Burden and Artemisinin Resistance in the Mobile and Migrant Population on the Thai-Myanmar Border, 1999–2011: An Observational Study. PLOSMedicine. 10(3). URL: http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001398
- Roper, C et al. August 2014. Molecular surveillance for artemisinin resistance in Africa. The Lancet. 14(8): 668-670. URL: http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(14)70826-6/fulltext
- Talisuna, Ambrose. 2014. “The threat of artemisinin resistance to Africa: Are we prepared?” Website of the Worldwide Antimalarial Resistance Network -- WWARN. URL: https://www.wwarn.org/

International Partner Highlights

The XXVI AMI Steering Committee meeting took place in Washington, D.C. from September 16-18, 2014 with the participation of representatives from technical partners and from national malaria control programs from Ecuador, Guatemala, and Peru. The agenda included sharing updates on activities; reviewing technical partners' and countries' 2014-2015 work plans; and a briefing on the draft "Plan for Artemisinin Resistance Containment and Prevention in South America."

Guyana and Suriname continue to implement studies to confirm the possible loss of efficacy of artemisinin. The **Pan American Health Organization (PAHO/WHO)** has assisted them in recruiting patients and preventing attrition in these studies, as well as making recommendations based on AMI/RAVREDA antimalarial resistance guidelines and WHO Global Plan for Artemisinin Resistance Containment (GPARC). Due to the frequent stock shortage of antimalarial drugs for severe malaria cases, PAHO/WHO assessed the stock levels in AMI-supported counties and worked with countries to acquire the recommended treatments for distribution. A smaller stock will be maintained in a regional warehouse in Panama for emergency distribution to countries as needed.

Photo: PAHO/WHO

PAHO recently completed the third round of External Quality Assurance Program for Malaria Microscopy Diagnosis (EQAP), with the participation of 20 countries (nine in addition to the 11 participating in AMI). This activity allows countries to periodically evaluate the performance of microscopists at their national reference laboratories in microscopic malaria diagnosis and to adapt their trainings to meet knowledge and skill gaps.

In September 2014, the U.S. **Centers for Disease Control and Prevention (CDC)** offered a workshop with Honduran entomologists on the use of bioassays to test the effectiveness of long-lasting insecticide treated bed nets (LLINs). The CDC contributed to the analysis of insecticide resistance surveillance data collected over an 18-month period in Honduras, which will help to orient a resistance management strategy. Also in September 2014, CDC worked together with Brazilian counterparts to train staff and begin enrollment of patients for the first phase of a field evaluation of RealAMP in Pará state, Brazil. RealAMP is a molecular-based method for malaria diagnosis.

Routine assessment of antimalarials using the three-level approach was suspended in Brazil in 2008, and since then the quality of antimalarials has not been assessed at public or private sector dispensing sites. The NMCP accepted a technical assistance proposal submitted by the **Promoting the Quality of Medicines Program (PQM)** to address this and other gaps in Quality Assurance/Quality Control (QA/QC) systems throughout the supply chain in Brazil's malaria-endemic areas. **PQM** plans to begin implementing the proposed activities in Brazil next year.Pharmaceutical Directorate (DIGEMID).

The **Systems for Improved Access to Pharmaceuticals and Supplies (SIAPS)** program reported that nine AMI countries shared data about their antimalarial stocks at central and regional warehouses for the third quarterly bulletin on Antimalarial stocks (April-June 2014). The availability of antimalarials in central warehouses increased slightly from 83% during quarter two to 85% during quarter three. SIAPS concluded the collection of information and finalized reports in four AMI countries (Peru, Brazil, Nicaragua and Guyana) for an in-depth analysis of malaria pharmaceutical management in the Americas. The consolidated regional report will re-orient SIAPS' future technical assistance.

Photo: PAHO/WHO

Links Media has completed situational assessments with 10 countries' NMCPs: Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Panama, Peru, Nicaragua, and Suriname. The assessments identified priorities, inventoried existing assets, and mapped relevant stakeholders to develop viable communication strategies for malaria. Links Media finalized a national communication strategy together with the Guyana NMCP, and advanced drafts of five other communication strategies that are pending country alignment and adoption. Lastly, Links Media helped provide updated content for the Brazilian Ministry of Health's malaria website.

Country Spotlight

Belize has turned its attention to improving the accuracy of malaria diagnosis. Belize and Mexico have agreed to conduct further joint trainings in malaria diagnosis, based on the diagnosis certification training held in Mexico City in February 2014. Following assessments of programmatic limitations, including resources, knowledge gaps, and surveillance, the country will reorient the national program as it starts on the path towards malaria elimination. PAHO/WHO has been supporting Belize and Honduras in developing individual malaria case investigation forms for the redirection towards elimination.

Rapid assessments of day 3 *P. falciparum* clearance using first-line antimalarial treatments began in selected states in the Amazon region of **Brazil** (Amapa, Amazonas, and Rondonia). An antimalarial efficacy study that was planned for 2014 is currently under discussion between the Brazilian NCMP and principal investigators.

Photo: PAHO/WHO

In **Colombia**, the Ministry of Health's vector control department collaborated with PAHO/WHO to conduct a regional workshop on the Theory and Practice of Entomology and Vector Control in Malaria from August 18-22, 2014. The training in vector surveillance and control showcased best practices implemented by Colombia's vector control program. Fourteen participants from Brazil, Ecuador, Nicaragua, Panama, Peru, Suriname, and Guatemala were trained in integrated vector management (IVM), as well as received support in prioritizing areas for reducing the malaria burden within country plans. Conclusions from this workshop will serve to guide future strategic planning for vector control and IVM interventions. Colombia's national reference laboratory participated in the third round of EQAP during Q4, and is currently promoting actives to strengthen quality assurance for malaria diagnosis at all levels. Colombia held a bi-national meeting with Panama in August 2014 to strengthen cross-border efforts for malaria surveillance and control.

Ecuador's Ministry of Health is still undergoing a thorough restructuring and decentralization process. PAHO and Ecuador have collaborated to plot proposed timeframes for implementing AMI activities, such as surveillance and vector management trainings. The country's malaria program (SNEM) has continued its monitoring and surveillance activities such as resistance surveillance, investigation and following up all *P. falciparum* malaria cases. Ecuadorian and Colombian national counterparts have initiated discussions to coordinate joint training and improve surveillance on the border.

Guatemala is working to improve supply chain management and quality monitoring of pharmaceuticals, particularly at the decentralized level with its volunteer collaborators. For vector control, two medical entomologists have received training in the division of tasks within the government's medical entomology sector. To promote the quality assurance process for malaria diagnosis, the Ministry of Health plans to conduct a workshop led by trainers who were certified in malaria microscopy diagnosis at the regional PAHO/WHO training in Mexico in February 2014. Workshops to develop a new national strategic plan for malaria control and disseminate the strategy for monitoring antimalarial resistance are planned for the next quarter, prioritizing the Health Area Directorate (DAS) of Escuintla.

Guyana's health stakeholders evaluated its planner activity and have decided to introduce the use of RDTs in difficult-to reach-locations, especially in mining areas. In vivo therapeutic efficacy studies are ongoing, with 25 patients having been recruited as of 30 June 2014. More information regarding these studies will be available after the November 2014 meeting in Suriname. New national malaria treatment guidelines were approved in August 2014. Trainings will be conducted to disseminate this information to all relevant in-country stakeholders. A PAHO/WHO selected a new Guyana-based Malaria Prevention and Control specialist.

Photo: PAHO/WHO

Honduras has been designated as a sub-regional reference point, whereby countries participating in the EMMIE initiative can send filter papers with *P. falciparum* malaria samples for laboratory testing. In this role, the sub-regional laboratory will be testing for antimalarial resistance using molecular markers. Monitoring genotype changes in circulating parasites could be useful as an effective early warning system that can help develop the timely response mechanisms required to avert the further spread of the resistant strains. The protocol for sample collection has been shared with the other EMMIE countries. These countries send samples to Honduras for testing using molecular markers, and following AMI/RAVREDA SoD for antimalarial efficacy and resistance surveillance.

The country has recently updated its National Malaria Strategic Plan (PEN) for 2014-2017, with a reorientation of malaria control activities, especially malaria diagnosis, towards elimination. Sixteen microscopists from endemic areas in the country received certification in malaria diagnosis at the country's first national workshop for the certification of microscopists from June 2-5, 2014.

Ministry of Health personnel and university researchers published antimalarial medicine efficacy monitoring results in an article in the journal *Memórias do Instituto Oswaldo Cruz*, titled, "A four-year surveillance program for detection of P. falciparum chloroquine resistance in Honduras." PAHO/WHO and Honduras national counterparts conducted a mission to the municipality of Puerto Lempira to train over 150 volunteers and health personnel in the installation and proper use of LLINs, as well as following up on the expansion of RDT use in difficult-to-reach areas within Honduras. As mentioned above, PAHO/WHO, CDC, and Honduran counterparts led trainings in the durability and bioefficacy of LLINs and analyzed resistance study data collected over the previous year. Honduras continues to restructure the sector that deals with the management and distribution of medicines, requiring many medicine quality control activities to be postponed.

Photo: PAHO/WHO

Following the sample collection protocol from Honduras, **Nicaragua** has collected positive *P. falciparum* filter paper samples from sentinel sites in its Autonomous North Atlantic Region (RAAN) from 2013. These samples will be sent to the reference laboratory in Honduras for quality control, as Honduras is the sub-regional reference laboratory. In June 2014, PAHO/WHO provided support for a training workshop to help strengthen the capacity of lab workers from Nicaragua's National Reference Center for Diagnosis (CNDR MINSA) in using microscopy diagnosis. This is part of the quality assurance process for malaria microscopy diagnosis that will strengthen capacity at the local level and is coordinated and implemented by the national laboratory in Nicaragua.

Panama held a cross-border training and surveillance meeting with counterparts in Colombia in August 2014. The protocol for an early warning and monitoring system for therapeutic failures in Panama is expected to be approved and printed by December 2014.

Peru accelerated its implementation of workshops aimed at improving local-level capacities for malaria prevention and control in Loreto state. Five workshops for community health agents occurred in Q4 on the topics of improving the microscopic diagnosis of malaria, conducting community education related to malaria prevention and control, fostering improved malaria surveillance, improving data collection for decision-making, and performing vector surveillance and control. On this last topic, the country is developing a Strategy for Malaria Vector Control and Surveillance that is expected to be finalized in late 2014 or early 2015. Peru is currently coordinating with Colombia's vector control program to adapt that entomological surveillance system to the Peruvian context.

Suriname and PAHO/WHO are preparing to submit a malaria concept note to the Global Fund under the new funding model. The submission will include epidemiological and programmatic analyses, which will help guide the country's future efforts and develop its 2014-2015 AMI work plan. The in vivo study to evaluate the efficacy of artemisinin-based combination therapies is ongoing, although challenged by slow enrollment of patients due to increasingly few P. falciparum cases. More information regarding this study will be available after the November 2014 meeting in Suriname. Suriname and French Guiana have expanded their collaborative efforts to monitor and coordinate activities for malaria prevention and control in gold mining areas.

Calendar of Events

November 2014

Photo: PAHO/WHO

American Society of Tropical Medicine and Hygiene 63rd Annual Meeting
November 2-6, 2014. New Orleans, LA, USA.

Malaria Day in the Americas
November 6, 2014. Milken Institute School of Public Health, Main Building, 950 New Hampshire Avenue, NW, Washington, D.C.

South-South Collaboration Workshop
Convened by USP/PQM. November 11-13, 2014. Lima, Peru.

American Public Health Association (APHA) 2014 142nd Annual Meeting
November 15-19, 2014. New Orleans, LA, USA.

Entomology 2014: 62nd Annual Meeting of the Entomology Society of America
November 16-19, 2014. Portland, OR, USA.

Malaria Control: From the Bench to the Field Course and Workshop
Oswaldo Cruz Foundation (Fiocruz) and Harvard University School of Public Health, November 16-22, 2014, Porto Velho, Rondônia, Brazil.

December 2014

International Day of People with Disabilities
December 3, 2014. Worldwide

International Migrants Day
December 18, 2014. Worldwide

Release of WHO's World Malaria Report: 2014

March 2015

AMI/RAVREDA Annual Evaluation Meeting/ Semi-Annual Steering Committee Meeting
March 24-27, 2015. Rio de Janeiro, Brazil.

April 2015

World Malaria Day
April 25, 2015

October 2015

XIV National Malaria Research Meeting
São Paulo, Brazil, October 1-3, 2015.

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AMAZON MALARIA INITIATIVE

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Photo: Jorge Escobedo/Peruvian Ministry of Health (MINSA)

Pan American Health Organization
World Health Organization
Regional Office for the Americas
CDC
SIAPS
Systems for Improved Access to Pharmaceuticals and Services
USAID
FROM THE AMERICAN PEOPLE
USP
PROMOTING THE QUALITY OF MEDICINES

Global Malaria News

World Malaria Report 2014

On December 9, 2014, the World Health Organization released the *World Malaria Report 2014* (http://bit.ly/2014WMR). This year's report highlighted the advances in reducing malaria morbidity and mortality globally. From the chapter on the region of the Americas, 120 million people in 21 malaria-endemic countries are estimated to be at some risk for malaria in the region, with 25 million at high risk. *P. falciparum* is responsible for <30% of malaria cases overall. Fifteen of the region's 21 malaria-endemic countries are expected to surpass a 75% reduction in cases by 2015.

New Tools on Elimination Scenarios are Available

In April 2014, the World Health Organization published, "From malaria control to malaria elimination: a manual for elimination scenario planning." See: http://www.who.int/malaria/publications/atoz/9789241507028/en/. The Malaria Modeling Group at the Imperial College London applies statistical and mathematical models to better understand the impact of interventions for malaria elimination. See: http://www1.imperial.ac.uk/malariamodelling/.

Mobile and Migrant Populations in Thailand's Cambodia and Myanmar Border Areas

Malaria Consortium partners in the Mekong Region have developed a poster with information about malaria prevention and treatment strategies among mobile and migrant populations in Thailand's border areas. Visit: http://bit.ly/MekongPoster.

Photo: Lina Kharn/University Research Co., LLC, Courtesy of Photoshare

Conference: "A Strategic Approach to Malaria"

On December 8, 2014, AMI partners PAHO/WHO and Links Media attended the conference "A Strategic Approach to Malaria" hosted by the Center for Strategic and International Studies (CSIS) Global Health Policy Center in Washington, DC. During discussions on the future of global malaria efforts, panelists examined the political, financial, and institutional requisites for elimination as a long-term goal. The global threat of artemisinin resistance and collaboration by countries in the Mekong Delta were also discussed. Bernard Nahlen of the US President's Malaria Initiative presented at the conference, as did WHO's Pascal Ringwald, American Society of Tropical Medicine and Hygiene (ASTMH) President Christopher Plowe, and others. For a recording of the event and reports, see: http://csis.org/event/strategic-approach-malaria.

Opportunities

Global Fund Call for Expressions of Interest

The Global Fund to Fight AIDS, TB and Malaria's current deadline to submit expressions of interest for regional programs is April 1, 2015. The Global Fund supports strategically-focused regional applications that are designed to achieve impact and clearly demonstrate the value-added of a regional approach. The Board has set aside US$80 million for new regional programs during the current allocation period. Frequently asked questions on this process are available in English, Spanish, and French here. Any regional organization that applies must not be a United Nations, multilateral, or bilateral agency, in addition to other requirements listed on the Global Fund website.

International Partner Highlights

The **Pan American Health Organization (PAHO/WHO)** organized the eighth annual Malaria Day in the Americas on November 6, 2014. Pedro Alonso, the World Health Organization's Global Malaria Program Director, spoke at the commemoration event at George Washington University Milken Institute School of Public Health in Washington, DC. This year's theme was "Accelerating Malaria Elimination in the Americas." PAHO/WHO recognized three programs from the Dominican Republic, Guatemala, and Honduras as Malaria Champions of the Americas finalists in honor of their work to prevent, control, and eliminate malaria. The Dominican Republic's National Center for Control of Tropical Diseases (CENCET) won first place for its integrated vector control program that aims to eliminate malaria from the island of Hispaniola. For more information go to: http://www.paho.org/hq/index.php?option=com_content&view=article&id=10195&Itemid=40263&lang=en.

Photo: PAHO/WHO

Photo: PAHO/WHO

In coordination with the WHO's Global Malaria Program, PAHO/WHO convened a follow-up consultation meeting for Guiana Shield countries on the Draft Plan for Artemisinin Resistance Containment and Elimination in South America in Paramaribo, Suriname from November 11–13, 2014 with officials from five AMI countries (Brazil, Ecuador, Guyana, Panama, Suriname), French Guiana, USAID, US CDC, SIAPS, and Links Media, as well as representatives of the Global Fund to Fight AIDS, TB, and Malaria. Regarding suspected decline in artemisinin sensitivity in Guyana and Suriname that was first reported in 2012, both countries presented the results of confirmatory studies that were carried out in 2014, which showed no evidence of artemisinin resistance as currently defined by the WHO. Results indicated that artemether-lumefantrine remains efficacious for treating *P. falciparum* malaria. The samples from Guyana were tested for K13 by the Pasteur Institute in French Guiana, and the samples from Suriname were tested for K13 by CDC in Atlanta. No K13 mutations were detected in the samples from either country. Nevertheless, resistance to artemisinin has been confirmed in the Mekong Region, and the Amazon sub-region must remain vigilant to the threat of emergence of resistance to artemisinin and its partner drugs.

Countries in the Americas monitored and reported on stock levels of antimalarial medicines through the PRAIS e-platform, with support from PAHO/WHO's Strategic Fund unit and the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program. As a result, the *Regional Bulletin for the Availability of Antimalarial Medicines* was issued for the third quarter of 2014. This report has become a valuable monitoring tool that helps prevent stock-outs and enables medicines to be exchanged between countries.

From November 11–13, 2014, the **Promoting the Quality of Medicines (PQM)** program implemented by the **U.S. Pharmacopeial Convention (USP)** also held a workshop in Lima, Peru with representatives from 16 Latin America and Caribbean countries. The workshop aimed to identify sustainable mechanisms to continue supporting South-South collaboration for the quality assurance of medicines, and was attended by officers of medicine regulatory authorities, official medicine control laboratories, and academia.

Photo: PAHO/WHO

The **U.S. Centers for Disease Control and Prevention (CDC)** tested *P. falciparum* samples from Suriname's 2014 therapeutic efficacy study (TES) and found no K13 mutations associated with artemisinin resistance. The CDC visited Guatemala in December 2014 to accompany an ongoing evaluation of long-lasting insecticidal bed nets (LLINs) procured by the Global Fund. Insecticide resistance monitoring has also been taking place in Guatemala, for which CDC assisted Guatemalan authorities and partners with data interpretation and discussed the next steps for resistance monitoring. The CDC continues to work closely with counterparts at Peru's National Institute of Health (INS, in Spanish) on a vector control and insecticide resistance management demonstration project. As part of these activities, CDC will begin an evaluation of the efficacy of LLINs in San Juan Bautista, Loreto together with INS and NAMRU-6, with the aim of improving vector control strategies. In the Brazilian state of Acre, the CDC conducted a training of federal and state-level staff in preparation for the upcoming field evaluation of RealAMP as a technique for molecular diagnosis of malaria. Also in Acre, Brazil, an *in vivo* study of the current first line treatment for *P. vivax* finished in mid-December 2014; data is currently being analyzed with colleagues from Brazil.

During the last quarter of 2014, the USAID-funded **Systems for Improved Access to Pharmaceuticals and Services (SIAPS)** program documented its analysis of the situation of malaria pharmaceutical management in Honduras in a preliminary technical report.

SIAPS staff visited Colombia to facilitate a workshop that led to an agreement on criteria for programming and distributing antimalarials in low incidence areas. These criteria will be used immediately to adjust procurement estimates and to distribute medicines to departmental warehouses. SIAPS also drafted a technical report on updates to Colombia's antimalarial requisition and dispatch tool.

In December 2014, SIAPS presented to the Brazilian NMCP on the findings of its study of interventions to improve access to malaria diagnosis and treatment in gold mining camps located in the states of Para and Roraima. SIAPS' short-term consultant in Brazil systematized the interventions. SIAPS organized a meeting in Brasilia, Brazil, to coordinate with local counterparts on the activities to be implemented to document the results and impact of the interventions to improve access to diagnosis and treatment in gold mining camps.

Links Media continued to develop country and regional-level communication strategies. This included providing technical assistance during a workshop on the National Strategic Plan for Malaria Elimination in Guatemala, and meeting with implementers of the Global Fund's Initiative to Eliminate Malaria in Mesoamerica and the Island of Hispaniola (EMMIE). As Central America moves towards malaria elimination, Links Media has sought to provide guidance on advocacy and social and behavior change communication (SBCC) activities to help countries meet the EMMIE targets. Information and communication resources were also provided to national-level malaria actors. Links Media has been in dialogue with the Brazilian NMCP to refine technical assistance plans for communication and social mobilization for malaria; Brazilian counterparts are considering a whole-of-society approach to improve and sustain malaria prevention, diagnosis, and treatment among priority populations. In November and December, Links Media engaged in multimedia outreach with international stakeholders and interested parties in conjunction with Malaria Day in the Americas and the release of the *World Malaria Report 2014.*

AMI was represented at the American Society of Tropical Medicine and Hygiene (ASTMH) annual meeting in New Orleans, USA by the CDC and the Brazilian NMCP, who presented the results of the study "How long do bed nets last? Physical durability & insecticide activity of LLINs after 3 yrs in Cruzeiro do Sul," as well as SIAPS with support from Links Media, who presented the poster "How low can we go? Lessons from an integrated partnership for malaria control in the Americas."

Photo: SIAPS

Country Spotlight

In November 2014, Brazilian NMCP staff and individuals from collaborating institutions in the states of Amazonas, Rondonia, Amapa, Acre, and Para were trained on good practices in malaria clinical trials in Mato Grosso state. Faculty at the Federal University of Mato Grosso organized the training course and invited specialized researchers from the Institute of Technology in Pharmaceuticals (Farmanguinhos/ Fiocruz) and the Drugs for Neglected Diseases Initiative (DNDI) as guest instructors. **Brazil**'s nine malaria-endemic states have been executing strategies to close the gaps for adequate implementation of standard malaria control interventions. A workshop to assess the progress was carried out in the first week of December 2014. During this workshop, all states developed "gap closure plans," based on deficiencies identified during a monitoring exercise conducted by the SIAPS program.

As part of the on-going health system reorganization, **Ecuador**'s National Control Service for Vector-Borne Diseases (SNEM) is currently being absorbed by the Ministry of Public Health (MSP).

The malaria sub-program of the **Guatemalan** Ministry of Health organized a workshop to update the National Strategic Plan for Malaria Elimination, with support from the Clinton Health Access Initiative (CHAI). PAHO/Guatemala, SIAPS, and Links Media participated in the meeting on behalf of AMI. The Petén program was runner up in the annual Malaria Champions of the Americas competition, awarded at the Malaria Day in the Americas event at the George Washington University Milken Institute School of Public Health on November 6, 2014.

Photo: SUDECC

From October 6–17, 2014, **Honduras** had a microscopist certification workshop with Guatemala for better South-South collaboration. The municipality of José Santos Guardiola, in Honduras' Bay Islands department, was honored as a semifinalist in the Malaria Champions of the Americas 2014 competition. From Tegucigalpa, Honduras' NMCP director spoke to the media about the disease and the national commemoration event for Malaria Day in the Americas.

Photo: Jorge Escobedo/Peruvian Ministry of Health (MINSA)

In October 2014, a "Strengthening of Malaria Microscopy Diagnosis" training workshop was conducted in Yurimaguas, Loreto, **Peru**. A total of 25 health personnel were trained in order to strengthen the capacity of the Alto Amazonas — Yurimaguas Health Network to respond to the ongoing malaria epidemic in Loreto. That same month, Peru's Ministry of Health (MINSA) hosted the country consultation on the Second Global Malaria Action Plan (GMAP2) for 2016–2025. The consultation meeting was organized together with the Roll Back Malaria Partnership, PAHO/WHO and NAMRU-6. During the multi-sectoral meeting, discussions focused on challenges and opportunities for malaria control in a post-2015 era, following the Millennium Development Goals. The input will be taken together with the results of a regional consultation meeting carried out in Panama in April 2014. The final version of the GMAP2 will be presented in October 2015. Learn more about the drafting of the GMAP2 in English (http://www.gmap2.org) or read the Peru country consultation report in Spanish (http://www.gmap2.org/espanol/pa%C3%ADses/).

Photo: PAHO/WHO

In 2015, **Suriname**'s Ministry of Health will begin to certify municipalities as malaria-free as the country reorients towards elimination of the disease. The Global Fund to Fight AIDS, TB and Malaria approved a new grant for Suriname in the amount of US$2.8 million. The grant will fund a project to target gold miners in Suriname's remaining malaria transmission hotspots, with a particular focus on the border with French Guiana. The National Malaria Board will serve as the country coordinating mechanism (CCM) for the grant, and implementation will begin in April 2015.

Calendar of Events

March

AMI/RAVREDA International Technical Consultation in Loreto,
March 2–5, 2015. Iquitos, Peru.

AMI/RAVREDA Annual Evaluation Meeting/ Semi-Annual Steering Committee Meeting,
March 23–28, 2015. Rio de Janeiro, Brazil.

Global Fund Malaria Stakeholder Workshop,
TBD. Georgetown, Guyana.

April

World Malaria Day,
April 25, 2015. Worldwide.

September

AMI/RAVREDA Semi-Annual Steering Committee Meeting,
TBD, Washington, DC, USA.

Photo: SUDECC

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October

XIV National Malaria Research Meeting,
October 1–3, 2015. Sao Paulo, Brazil.

November

143rd APHA Annual Meeting and Exposition,
October 31–November 4, 2015. Chicago, USA.

Malaria Day in the Americas,
November 6, 2015. Region-wide.

December

World Malaria Report 2015 released, TBD.

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Photo: Peruvian Ministry of Health (MINSA)

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Highlights from the XIV AMI/RAVREDA Annual Evaluation Meeting in Rio de Janeiro, Brazil

From March 23–26, the XIV Amazon Malaria Initiative (AMI) and Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) Evaluation Meeting in Rio de Janeiro, Brazil, brought together representatives from 19 of the 21 endemic countries in Latin America and the Caribbean. Proceedings emphasized achievements and key focus areas moving forward. Major themes included guaranteeing access to prompt, quality diagnosis and treatment in light of the reduced number of cases, the threat of antimalarial drug resistance, quality of essential medicines, vector surveillance and control, and the transition towards elimination.

Populations that work in mining and logging in the Amazon forest and that live in remote and dispersed communities represent higher risk groups for the emergence of resistance to antimalarials, as well as for the persistence of malaria transmission. Detection of individuals with asymptomatic parasitemia poses a particular challenge to health systems in the region, as asymptomatic infections are frequent, are not easily identified with routine microscopy or rapid tests, and may play a role in the persistence of malaria transmission.

The threat of antimalarial drug resistance—both to artemisinin and to partner drugs in the combinations used in many treatment regimens—is a major public health concern. Decreasing parasite sensitivity to treatment has the potential to reverse progress towards elimination and increase health system costs. It is especially concerning in the Guiana Shield sub-region of South America that includes Guyana, Suriname, French Guiana, Brazil, and Venezuela, because this sub-region experiences considerable movement of miners, loggers, and remote and dispersed populations. Recent therapeutic efficacy studies have indicated declining sensitivity to antimalarials in Suriname and French Guiana, but no resistance to artemisinin. In a retrospective review of *P. falciparum* samples from Guyana collected in 2012, mutations were found in the K13 gene associated with resistance to artemisinin, but no mutations were detected among samples collected in 2014. It is recommended that countries use a combination of available tools to continue monitoring the situation, from therapeutic results in patients to genetic markers.

Partners highlighted the need to ensure that ministries of health or regulatory authorities implement corrective actions when poor quality medicines are identified; no information on follow-up was provided after poor quality antimalarials were found in the informal private sector during studies in Colombia and Guyana.

A 2014 *in vivo* trial in the Western Brazilian Amazon showed that the current treatment regimens for *P. vivax* (chloroquine and primaquine) remain efficacious. Given the difficulties

Photo: Links Media

Photo: Suiane Costa Negreiros

associated with *in vivo* studies, other methods should be designed and evaluated to monitor the efficacy of *P. vivax* treatments on an ongoing basis in Brazil and other countries. The regional network for the external assessment of performance in microscopic diagnosis of malaria continues to grow, and now covers national laboratories from 19 countries. The network has detected the need for further improvements in microscopy in many cases, evidencing one of the difficulties in conducting *in vivo* trials.

Where vector control is concerned, the use of evidence-based decision-making is not yet commonplace in public policy. Aside from the prevailing political culture, significant knowledge gaps exist that hinder officials' ability to make evidence-based vector control decisions. The region has limited tools available for vector control, and of those in use, many uncertainties remain as to their acceptability and impact among target populations.

Strong surveillance systems will be needed for countries moving towards pre-elimination and elimination scenarios, in order to quickly detect and respond to all cases and reduce the risk of re-establishment of malaria transmission. Meeting participants received an overview of the epidemiological surveillance systems in El Salvador and the US, as well as of the vector surveillance information systems in Brazil and Colombia. Countries will need to transition from malaria control to a pre-elimination or elimination framework and commit to robust, sustainable health systems that provide a higher level of access and quality of care. The many facets of elimination need to be better understood by health authorities, national malaria program staff, and other malaria stakeholders.

International Partner Highlights

On March 22, 2015, the **Pan American Health Organization (PAHO/WHO)** facilitated a Malaria Partners Meeting with the participation of AMI/RAVREDA partners and other selected malaria stakeholders from the research and cooperation sectors. PAHO/WHO then led the annual evaluation meeting together with the Brazilian Ministry of Health. PAHO/WHO's Regional Malaria Program has been supporting Brazil, Nicaragua, Colombia, and other AMI countries to plan *in vivo* efficacy studies and maintain their capacity for routine surveillance of efficacy and resistance to antimalarials. PAHO/WHO has also worked to correct critical deficiencies in the antimalarial procurement and distribution process, most recently by coordinating the joint procurement of antimalarial medicines for nine countries and fulfilling urgent requests to help treat drug resistant strains of malaria from outside the region, as well as the donation of treatments for severe malaria cases as requested by some countries. In May 2015, a regional training to improve the quality of microscopic diagnosis is scheduled to occur in coordination with Honduras' National Reference Laboratory, Peru's National Institute of Health, and Mexico's Institute of Epidemiological Diagnosis and Reference for certification of personnel from Southern Cone and Amazon basin countries. The fourth round of External Quality Assurance (EQAP) performance assessments led by PAHO/WHO will further expand the network to over 20 national reference laboratories in the region. In parallel, bench aids for malaria microscopy have been translated into Spanish and distributed to countries. PAHO/WHO provided assistance to Honduras to expand malaria diagnosis to the remote area of La Moskitia using rapid diagnostic tests (RDTs), and together with the US CDC has advised on vector control activities in Guyana. Finally, PAHO/WHO will form a Technical Advisory Group (TAG) to guide the future activities of PAHO's Regional Malaria Program on malaria prevention, control and elimination efforts, including the development of the new Regional Plan for Malaria for 2016–2020 in alignment with the WHO/Global Technical Strategy for malaria (GTS 2016–2030).

Photo: Gracy Obuchowitz

From March 2–6, 2015, AMI partners including USAID, PAHO/WHO, CDC, SIAPS, USP/PQM, and Links Media traveled to Iquitos, Peru as part of an expert consultation meeting coordinated by PAHO/WHO and USAID. The consultation meeting brought together national and local-level partners from a variety of sectors to identify recommendations to be presented to health authorities in order to address the increased number of malaria cases in the region of Loreto.

The **Promoting the Quality of Medicines (PQM)** program implemented by the **US Pharmacopeial Convention (USP)** is working with the medicines regulatory agency in Ecuador to reinstate the three-level approach to medicine quality control that had been used by the malaria program in the past. In Peru, USP/PQM is coordinating with Loreto and Madre de Dios regional health authorities to perform Level 2 analyses on all medicines with Minilab™ methodologies. In addition, in July 2015 an advanced training will be delivered to official medicine control laboratories (OMCLs) in Colombia and Peru to support the development of new analytical methods for medicines not currently included in the Minilabs™. Following the sustainable South–South collaboration mechanism workshop convened by USP/PQM in November 2014, surveillance forms were developed by country representatives and PQM, with which regional OMCLs and medicines regulatory agencies (MRAs) reported their quality assurance and quality control capabilities and needs. PQM is currently developing a Concept Note that will be delivered to countries' ministries of health in May 2015 with workshop conclusions and recommendations. Finally, development of an internet-based application to support Level 1 analyses in the field will start by June 2015; pilot testing of this tool is planned in Colombia and Peru.

Throughout the Americas region, the USAID-funded **Systems for Improved Access to Pharmaceuticals and Services (SIAPS)** program continues to assist countries with low

malaria incidence to forecast their needs in order to overcome bottlenecks and maintain adequate antimalarial medicine stocks. As a result of the work done by USAID-funded SIAPS, pharmaceutical supply management criteria have been developed for low-incidence areas for seven countries. The criteria have been institutionalized in Colombia, Brazil, and Nicaragua; Honduras and Nicaragua have considered them in procurement planning. A regional report on the status of antimalarial supply chain management is forthcoming. This report will be based on data collection in seven countries, including the performance of distribution systems, percentage availability versus stockouts, and time to fulfill requests.

Links Media contributed to creating a shared understanding of what is required for malaria elimination by advancing a regional communication strategy for Central America and disseminating technical documents on elimination via the Amazon Malaria Initiative website. In addition, Links Media continues to develop national malaria communication strategies together with ministries of health. This work included a technical visit to assess the communication challenges and needs in response to the increased number of malaria cases in the region of Loreto, Peru in March 2015.

In Guatemala and Honduras, the **US Centers for Disease Control and Prevention (CDC)** has been working with PAHO/WHO and national authorities to characterize insecticide resistance as well as to monitor the efficacy of long-lasting insecticidal bed nets (LLINs) in operational conditions. In Brazil, a field evaluation of RealAMP technology is underway with CDC oversight, and the CDC has begun a new collaborative initiative with the University of São Paulo to assess the malaria burden in pregnant women. Finally, the CDC and scientists from Latin American countries are preparing publications on the first round of collections to assess the frequency of histidine-rich protein II (HRP2) gene deletion in parasite samples from the region, and will conduct the assessment in new areas in some countries.

Photo: PAHO/WHO

Country Spotlight

- **Belize** and **Guyana** requested PAHO/WHO assistance with the sampling of antimalarial medicines for quality control.
- **Brazil's** Ministry of Health hosted the XIV AMI/RAVREDA Annual Evaluation Meeting from March 23–26, 2015 in the city of Rio de Janeiro. A new agreement has been signed with PAHO/WHO and the Federal University of Minas Gerais (UFMG) to monitor antimalarial medicine quality at the third-level of analysis. Brazil is preparing to work towards elimination of *P. falciparum* malaria.
- **Colombia's** Ministry of Health and Social Protection seeks to establish a national malaria knowledge network that will bring together governmental and non-governmental organizations. PAHO/WHO and other AMI/RAVREDA partners will be involved in the development process. The Colombia Malaria Project, a multi-year project funded by the Global Fund to Fight AIDS, TB and Malaria (GFATM), came to a close in April 2015. The Ministry will take over important functions of the project under its vector-borne diseases division.
- **Nicaragua** has developed a national malaria surveillance information system for case reporting. The Ministry of Health foresees the need to strengthen diagnosis and treatment mechanisms to ensure that municipalities certified as "free of malaria" are equipped to prevent reintroduction of the disease. In addition, an early warning system for malaria is needed in light of the Tumarin hydroelectric dam project and the Great Interoceanic Canal, the construction of which begins in 2015. Sampling of bed nets for testing of durability and retention of insecticide is ongoing.
- Co-authors from **Peru, Honduras,** the CDC and the US Naval Medical Research Unit 6 (NAMRU-6) collaborated on the following journal articles:
  - Novel mutations on the ace-1 gene of the malaria vector *Anopheles albimanus* provide evidence for balancing selection in an area of high insecticide resistance in Peru (*Mal Journal*)
  - Behavioural responses of females of two anopheline mosquito species to human-occupied, insecticide-treated and untreated bed nets (*Mal Journal*)
  - Prevalence of pfhrp2 and pfhrp3 gene deletions in Puerto Lempira, Honduras (*Mal Journal*)
  - Molecular epidemiology of *Plasmodium falciparum* malaria outbreak, Tumbes, Peru, 2010–2012 (*Emerg Infect Diseases*)
- In April 2015, implementation of a new grant from GFATM began in **Suriname**. The grant targets malaria transmission among artisanal gold miners.

New AMI Materials Available

- Fact sheet on the status of antimalarial medicine resistance in Latin America and the Caribbean: English, Spanish, Portuguese
- Success story about the expansion of the three-level approach to medicine quality control in Colombia: English, Spanish
- AMI brochure: English, Spanish, Portuguese

Global Malaria News

Regional Coordinating Mechanism Meeting Held in Guatemala

The Technical Advisory Group on HIV, tuberculosis and malaria to the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA) held a regional meeting in Guatemala that brought together civil society representatives and national malaria program coordinators from February 24–26, 2015. After identifying the roles of the main civil society actors in the implementation of the Initiative for the Elimination of Malaria in Mesoamerica and the Island of Hispaniola (EMMIE), a Regional Civil Society League was created. The new Regional Civil Society League will allow for better coordination and participation of civil society in the Regional Coordinating Mechanism (MCR, by its acronym in Spanish). For its part, the MCR for Central America seeks to have a regional strategic plan for malaria elimination approved by member countries in June 2015.

Haiti Malaria Elimination Consortium (HaMEC) Established

Malaria parasite prevalence in Haiti is extremely low, and infection is primarily caused by *P. falciparum* parasites. In February 2015, the Bill and Melinda Gates Foundation announced a grant to the CDC to lead the new Haiti Malaria Elimination Consortium (HaMEC). HaMEC's objective is to eliminate malaria from the island of Hispaniola by 2020. Dr. Keith Carter, Senior Advisor on Malaria and other Communicable Diseases with PAHO/WHO, said, "We laud this expression of solidarity with efforts to eliminate malaria from the only two countries in the Caribbean [Haiti and the Dominican Republic] where transmission still exists." PAHO/WHO, the CDC, and seven other institutions make up the consortium. The new grant is for $29.9 million over six years; however, a funding gap still exists to meet the estimated $80 million that is needed to eliminate malaria in Haiti by 2020.

Global Technical Strategy 2016–2030

The World Health Organization (WHO) will release its new Global Technical Strategy (GTS) for the years 2016–2030 as well as Global Malaria Action Plan 2 (GMAP2) in 2015.

Opportunities

Regional Edition of Science of Eradication Course

This training and leadership development course in São Paulo, Brazil will provide a multidisciplinary perspective on malaria disease eradication. The course is designed for students at all levels, as well as global public health professionals, those in the private sector, academia, scientists, researchers, malaria control program administrators, and field-based personnel. The course is organized by the University of São Paulo, in partnership with the Barcelona Institute for Global Health (ISGlobal), Harvard University, and the Swiss Tropical and Public Health Institute (Swiss TPH). Applications are due by May 31, 2015: http://scienceoferadication.org/courses/science-of-eradication-malaria-brazil/overview/.

Photo: PAHO/WHO

Malaria Champions of the Americas

On April 25, 2015, World Malaria Day PAHO/WHO opened its call for nominations of innovative efforts to fight malaria in the Americas. Finalists in the Malaria Champions of the Americas competition will be selected from a panel of judges and announced in Washington, DC. Full details and nomination forms can be downloaded at http://bit.ly/2015MalariaChampsAmericas. Nominations are due by June 22, 2015.

Calendar of Events

April

World Malaria Day,
April 25, 2015. Worldwide.

- Pre-Symposium Workshop and Celebration of World Malaria Day: Malaria and Pregnancy, Santa Marta, Colombia. April 23, 2015.
- Fair in Commemoration of World Malaria Day, Escuintla, Guatemala. April 24, 2015.
- Formal Hand-off of the Colombia Malaria Project, Bogotá, Colombia. April 25, 2015.

May

PAHO/WHO Regional training to improve quality of microscopic diagnosis and certification for participants from South America,
Mexico. May 11–22, 2015.

5th International Conference of Research on *Plasmodium Vivax* Malaria,
Jimbaran, Bali, Indonesia. May 19–22, 2015.

June

Meeting of the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA),
Guatemala City, Guatemala.

Core Course of the Science of Eradication: Malaria,
Boston, USA. June 14–19, 2015.

Malaria: Breaking the Cycle (Tools, Strategies, and Implementation) Advanced Module,
Boston, USA. June 20–22, 2015.

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Photo: SUDECC

Beating Malaria 2015,
London, UK June 29–July 1, 2015.

September

AMI/RAVREDA Semi-Annual Steering Committee Meeting,
Washington, DC, USA.

Science of Eradication: Malaria Course,
São Paulo, Brazil. September 22–October 2, 2015.

October

XIV National Malaria Research Meeting,
Sao Paulo, Brazil. October 1–3, 2015.

64th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH),
Philadelphia, USA. October 25–29, 2015.

November

143rd APHA Annual Meeting and Exposition,
Chicago, USA. October 31–November 4, 2015.

Malaria Day in the Americas,
Region-wide. November 6, 2015.

December

World Malaria Report 2015 released.

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AMAZON MALARIA INITIATIVE

Quarterly Bulletin • August 2015
Volume 2, Issue 3

Photo: Chloe Hans-Barrientos

Pan American Health Organization
World Health Organization Regional Office for the Americas
CDC Safer • Healthier • People
SIAPS Systems for Improved Access to Pharmaceuticals and Services
USAID From the American People | USP Promoting the Quality of Medicines

International Partner Highlights

As part of an effort to help AMI coordinate with other initiatives in the region, the Pan American Health Organization (PAHO/WHO) collaborated with USAID, the Centers for Disease Control and Prevention (CDC), the Clinton Health Access Initiative (CHAI), the Carter Center, and Links Media to develop a malaria elimination curriculum that addresses adherence to diagnosis and treatment protocols and aims to improve the capacity of Haiti's national malaria program in the technical areas of elimination. The curriculum was delivered during a Malaria Zero workshop in Haiti from July 20–25, 2015, with the expectation that it can be adapted for other malaria-endemic countries in the region.

Pan American Health Organization (PAHO/WHO)

PAHO/WHO completed a Framework for *Artemisinin Resistance Prevention, Containment, and Elimination in South America* that includes policy recommendations and considerations to help prevent antimalarial resistance from developing and spreading in the region. PAHO/WHO has provided support to Guyana to update its strategic plan for malaria in light of AMI/RAVREDA guidelines and results of the recently concluded *in vivo* efficacy study of artemisinin and its partner drugs. Guyana is considering the elimination of *P. falciparum* malaria as the most effective way to prevent resistance to artemisinin-based treatments, which is currently of concern in the Guyana Shield sub-region. PAHO/WHO has also assisted Nicaragua to develop a new strategic plan oriented towards malaria elimination.

Through the Strategic Fund, PAHO/WHO coordinates a joint procurement of antimalarial medicines. Six AMI-supported countries procured antimalarials through the PAHO Strategic Fund and expect to receive the medicines in September or October 2015. Due to a stock-out in the first quarter of 2015, PAHO/WHO facilitated an emergency purchase of antimalarials for Guatemala. In the area of pharmaceutical quality, PAHO's Essential Medicines unit hired a reference laboratory in Uruguay to perform quality control tests on antimalarial drugs procured for countries in the region through the Strategic Fund.

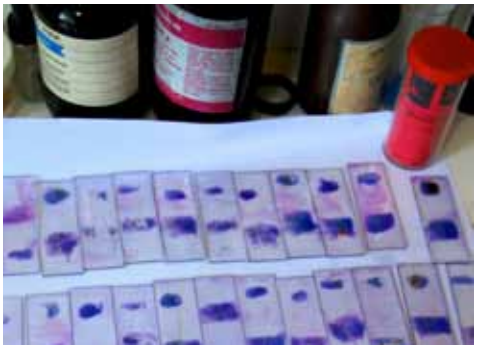


Photo: PAHO/WHO

Results from the third round of the External Quality Assurance Program (EQAP) were presented at the AMI/RAVREDA meeting in Brazil (25 March 2015), with an overview of microscopy diagnosis capacities and current performance gaps at national laboratories. In May 2015, PAHO/WHO delivered a follow-on training in microscopy malaria diagnosis to participants from South American countries in Mexico. Panels of slides were sent to countries participating in the fourth round of the EQAP for evaluation.

Regional needs for vector surveillance and control have been analyzed by PAHO/WHO and CDC, and both organizations are planning vector control needs assessments for Belize, Brazil, and Guyana. Together, PAHO/WHO and CDC are formulating a response to Peru's request for the development of a national plan to manage insecticide resistance.

With regard to epidemiological surveillance, PAHO/WHO has been testing a tool to verify malaria data collected from different transmission strata. The Global Fund to Fight AIDS, Tuberculosis and Malaria supported PAHO/WHO to develop this new tool for use in countries that are part of the Initiative for Malaria Elimination from Mesoamerica and the Island of Hispaniola (EMMIE). It may also be applicable to other AMI-supported countries in the region. PAHO/WHO has begun developing the new *Regional Strategy and Plan of Action for Malaria 2016–2020,* which will integrate characteristics unique to malaria in the Americas within the WHO's *GTS 2016–2030* framework document.

Centers for Disease Control and Prevention (CDC)

The CDC published an article in *PLoS One* together with Guyanese and Surinamese co-authors entitled, "Variation in *Plasmodium falciparum* Histidine-Rich Protein 2 (*Pfhrp2*) and *Plasmodium falciparum* Histidine-Rich Protein 3 (*Pfhrp3*) Gene Deletions in Guyana and Suriname." In addition, the CDC processed *P. falciparum* samples from Guyana that were collected in 2010 and 2014 to examine any trends in artemisinin resistance markers. The CDC analyzed kelch-13 (K13) mutations as a genetic marker of artemisinin resistance.

Photo: SUDECC, LLC

CDC is about to complete collection of 1,000 blood samples from fever cases to be used in the field validation of RealAmp. Processing will take place at the molecular laboratory in Acre, Brazil with confirmation to be done at the Evandro Chagas Institute and quality control of 10% of all samples to be done by the CDC. The CDC will also offer training and troubleshooting assistance. Two Ph.D. candidates from the Federal University of Acre, in association with the University of São Paulo, were trained at CDC headquarters in Atlanta this quarter on laboratory techniques for the molecular diagnosis of malaria. During the training, they processed samples for their research on the burden of malaria in pregnancy in Acre.

CDC provided assistance in preparing the manuscript of the results from the 2013-2014 *P. vivax* efficacy study conducted in Acre, Brazil. Concurrently, a study protocol to test the efficacy of artemisinin-lumefantrine as a treatment for *P. falciparum* malaria is being drafted in collaboration with Acre scientists, and will be submitted for state institutional review board approval. This planned study on the therapeutic efficacy of an artemisinin-based combination therapy (ACT) will take advantage of the capacities developed with CDC assistance during the prior *P. vivax* efficacy study in Acre.

Systems for Improved Access to Pharmaceuticals and Services (SIAPS)

The USAID-funded SIAPS program continued to support data collection and analysis for the Quarterly Bulletin on Availability and Consumption of Antimalarials, which was disseminated by PAHO/WHO in May 2015. Nine countries reported on their pharmaceutical stocks for this bulletin. Also during the quarter, SIAPS completed and disseminated the report on "Rapid Assessment of Malaria Pharmaceutical Management in AMI Countries," available in Spanish on the SIAPS website.

In working with national counterparts, SIAPS developed the first draft of a research protocol to estimate the under-reporting of malaria cases at diagnosis and treatment posts in high-burden departments in Colombia. It is anticipated that the data collection protocol and instruments will be tested at a few health facilities during the next quarter.

Photo: Marieke Heemskerk

In Brazil, SIAPS continued working with local counterparts in Pará and Roraima states on the systematization of interventions to improve access to malaria diagnosis and treatment in gold mining areas. SIAPS will finalize the technical report on the systematization of these interventions during the next quarter and will begin to monitor implementation progress based on a monitoring plan to be completed by August 2015.

Photo: SIAPS

SIAPS continues to provide assistance to national counterparts in Peru by providing technical assistance (TA) to strengthen capacity in the proper management and storage of key commodities at medical warehouses, which was highlighted in the recently disseminated Success Story Certification of the regional medicines warehouse in Loreto (Peru). The Loreto warehouse became only the second warehouse ever to receive Peru's nationally-conferred Certificate of Good Storage Practices (BPA, by its acronym in Spanish). In addition, following on the AMI technical support field visit to Iquitos, Peru in March 2015, SIAPS is supporting the Ministry of Health in the formulation of a plan to introduce a fixed-dose ACT.

Promoting the Quality of Medicines (PQM)

To expand the range of medicines that can be tested in the field, the Promoting the Quality of Medicines Program (PQM), managed by the U.S. Pharmacopeial Convention (USP), is supporting countries to develop protocols for medicines of interest that are not included among those that can be analyzed with the standard equipment for rapid field tests. Since analytical methods recognized by country's health systems need to be validated, USP has trained personnel from Medicines Regulatory Agencies and national control laboratories on validation of analytical procedures. Trainings were delivered in Peru and Colombia on August 3 and August 5, respectively. Validation of new rapid testing protocols will enable regulatory agencies to adopt such protocols for regular quality monitoring.

Meanwhile, Peru's General Directorate of Medicines, Supplies and Drugs (DIGEMID) developed a biannual program to verify the quality of pharmaceutical products, incorporating

the Three-Level Approach (3LA) to medicine quality control promoted by PQM under AMI. This represents a significant expansion of the approach that had previously been implemented by only two Regional Health Directorates (DIRESAS). The program includes a timeline for implementation with a list of medicines to be analyzed by each of six DIRESAS that will now use the approach. It also includes an evaluation component at the end of the period. PQM has supported the launch of the program by donating reference standards and manuals to Loreto and Madre de Dios through PAHO/Peru. The National Center for Quality Control delivered a national training for DIRESAS and universities from August 12–15, 2015 in Cuzco. During a workshop prior to the training, DIGEMID provided an overview of the biannual program and PQM presented on successful experiences with the 3LA in other countries in the region and the world.

In Ecuador, the medicines regulatory agency created in 2013, ARCSA, has included the 3LA as one of its modalities for post-registration medicine quality monitoring. As a result, second-level rapid analytical tests for pharmaceutical quality control will now be tools for ARCSA's regular activities. A detailed implementation plan has been developed for field testing of all classes of medicines in Ecuador, including drugs for malaria, TB, and other diseases. To support the launch of this program, PQM will be donating reference standards, guidelines, and some of the supplies needed. The routine quality monitoring program will begin as soon as all necessary supplies are in place.

In follow-up to a November 2014 regional workshop that explored sustainable mechanisms for South-South collaboration for the quality assurance of medicines, PQM disseminated a concept note to countries' ministries of health. In addition to conclusions and recommendations from the workshop, the concept note included surveillance information on capabilities and needs of countries' Medicines Regulatory Authorities and Official Medicines Control Laboratories, highlighting resources that exist in the region that may contribute to the provision of South-South technical assistance.

Links Media

Links Media collaborated with the national malaria programs of Panama, Nicaragua, Honduras, Belize, and Guatemala to complete a *Strategic Malaria Communication Guide* in support of Central American action towards elimination. The Guide will assist NMCPs to use communication and advocacy to work towards malaria elimination as a common goal within the sub-region.

In June 2015, Links Media obtained media coverage for the article Molecular Epidemiology of Malaria Outbreak, Tumbes, Peru, 2010 – 2012 in the Spanish-language edition of SciDev.net. The article had originally been published in Emerging Infectious Diseases by US NAMRU-6, CDC, and Peruvian health officials. Links Media also assisted SIAPS to produce and disseminate two new success stories on the strengthening of pharmaceutical supply systems in the Peruvian Amazon.

Photo: Marieke Heemskerk

Additional communication TA included Links Media's crafting of detailed, evidence-based guidance for the Brazilian NMCP to develop a national social mobilization strategy for malaria. The final TA document highlighted activities from neighboring countries such as Colombia and Suriname, legal precedents for social mobilization, and interventions for use with mining, indigenous, and riverine populations in the Amazon region.

In Colombia, Links Media has agreed to develop a policy paper on the role of communication in malaria prevention and control for decision-makers in

departments and municipalities. The policy paper is being drafted together with communication focal points at Colombia's Ministry of Health and Social Protection, using evidence from the recently concluded Colombia Malaria Project. Links Media conducted a comprehensive assessment of the Colombia Malaria Project's communication component and disseminated a number of project documents via the AMI website. Links Media continued to communicate about the evidence base for malaria in the Americas with media outreach and publication of success stories.

Country Spotlight

- **Belize** finished updating its malaria treatment guidelines with technical support from PAHO/WHO. The country also completed an analysis of vector behavior and distribution, which will make it possible to target interventions to geographic areas that are particularly at-risk.
- **Guatemala** finalized its national strategic plan for malaria elimination (PEN 2015-2020), which was developed with the input of stakeholders from numerous sectors.
- **Guyana's** national authorities approved new malaria treatment guidelines that will be printed for distribution in the coming months. Efforts are underway to implement a pilot project in Region 8 to expand access to diagnosis using rapid diagnostic tests (RDTs). RDTs have been procured by PAHO/WHO, and are expected to be deployed as soon as the training of health personnel in their use is completed. The elimination of *P. falciparum* malaria is under discussion, and could lead to a reorientation of efforts in this country.

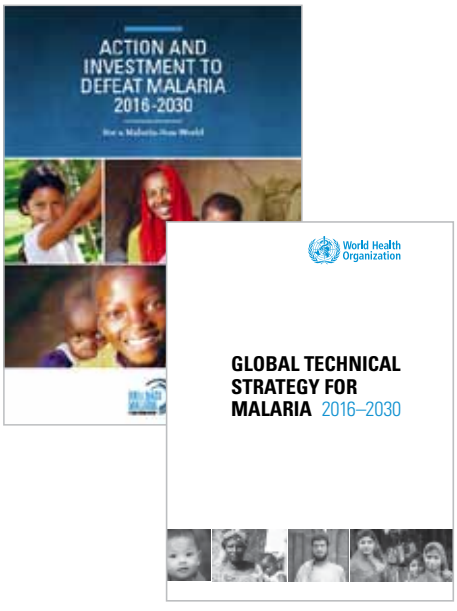
Photo: PAHO/WHO

- **Honduras** prepared panels of slides to be used for the fourth Central American round of the EQAP. Additionally, Honduras is creating a slide bank for use in microscopy trainings. During a supervisory visit to Colón and Gracias a Dios departments, PAHO/WHO reviewed the status of malaria control efforts. PAHO/WHO accompanied the Global Fund on a visit to the Juticalpa community in the municipality of José Santos Guardiola to assess acceptance and use of long-lasting insecticidal bed nets.
- **Nicaragua** evaluated RDT use at the ministry of health's notification posts and by the network of voluntary collaborators in 12 hard-to-reach locations. Results were cross-checked with microscopy and indicated that RDT results are indeed accurate with 100% slide agreement, thus reinforcing the value of this intervention in areas without access to microscopy. Nicaragua is now finishing a study to evaluate whether different types of washing water can impact the efficacy of mosquito nets. Follow-up to the insecticide resistance monitoring was done in six municipalities, exercising the capacities of local personnel to use the CDC bottle test to evaluate insecticide residuality and ensure insecticides remain effective.
- **Suriname** used the March 2015 AMI/RAVREDA meeting as a forum to collaborate with Brazil and French Guiana to improve access to malaria prevention, diagnosis and treatment for itinerant gold miners. Closer coordination is planned among the countries.

Photo: USAID's CAP-Malaria

Global Malaria News

World Malaria Day 2015 was celebrated on April 25th with the theme "Invest in the future: Defeat Malaria." On this occasion, the President's Malaria Initiative (PMI) of the United States Government released its Ninth Annual Report to Congress. Seventeen out of 19 PMI focus countries in sub-Saharan Africa saw all-cause mortality decrease by 18-55% among children under five. From 2000 to 2013, the estimated number of malaria cases in Africa decreased by 6% and the number of overall deaths fell by 34%. The PMI report primarily attributed gains to increased use of insecticide-treated mosquito nets, accurate diagnostic tests, and effective drug therapies. Global health actors urged high-level commitment towards a world free of malaria, and called special attention to the issue of malaria in pregnancy on World Malaria Day. Also in April, PMI launched its 2015–2020 Strategy aimed to further reduce malaria morbidity and mortality by 2020, with the long-term vision of a world without malaria.



In May 2015, the 68th World Health Assembly adopted the WHO *Global Technical Strategy for Malaria (GTS) 2016–2030*. The GTS provides a comprehensive framework to help countries accelerate efforts towards malaria elimination, with the global goal of a 90% reduction in malaria morbidity and mortality by 2030. The Roll Back Malaria Partnership's *Action and Investment to defeat Malaria (AIM) 2016–2030* was released in July 2015, building on the previous Global Malaria Action Plan (GMAP) 2008-2015, with a call to include malaria in the wider development agenda. AIM demonstrates how a more inclusive, multisectoral approach to malaria reduction and elimination can result in better health, economic, and development outcomes. GTS and AIM are intended as complementary tools to be used to achieve malaria targets under the post-2015 development agenda.

Calendar of Events

August

USP Participation in Training of Peru's Regional Health Directorates (DIRESAS),
On the Evaluation of Medicine Quality and Presentation of the Biannual Program to Verify the Quality of Pharmaceutical Products through Rapid Tests,
Cuzco, Peru,
August 12–15, 2015.

4th Symposium on Perspectives on Malaria Elimination in Latin America,
Organized by the Latin American Center for Malaria Research and Control (CLAIM),
Cali, Colombia,
August 19–21, 2015.

September

AMI/RAVREDA Semi-Annual Steering Committee Meeting,
Washington, DC, USA,
September 9–11, 2015,

Science of Eradication: Malaria Course,
São Paulo, Brazil,
September 22–October 2, 2015.

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Instagram.com/AmazonMalaria

Photo: Chloe Hans-Barrientos

October

XIV National Malaria Research Meeting,
São Paulo, Brazil,
October 1–3, 2015.

Workshop on Education and Social Participation for Malaria Surveillance and Control,
Brasília, Brazil,
October 6–8, 2015.

64th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH),
Philadelphia, USA,
October 25–29, 2015.

November

143rd American Public Health Association (APHA) Annual Meeting and Exposition,
Chicago, USA,
October 31–November 4, 2015.

Malaria Day in the Americas,
Region-wide,
November 6, 2015.

December

World Malaria Report 2015
Launch, TBD.

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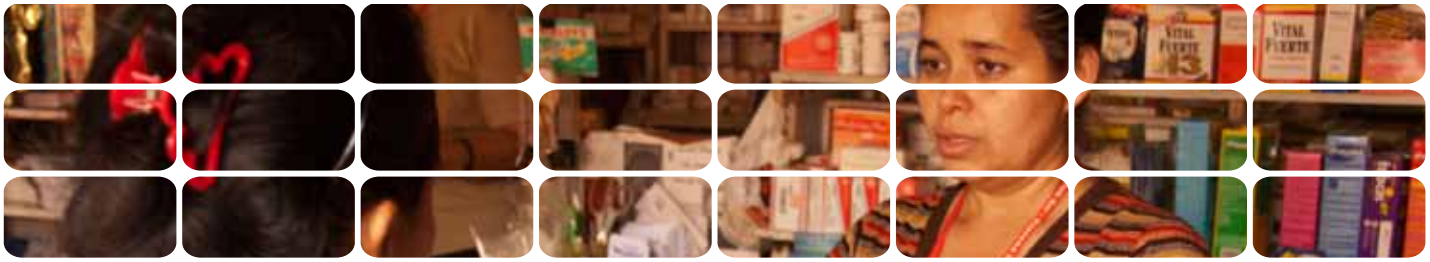
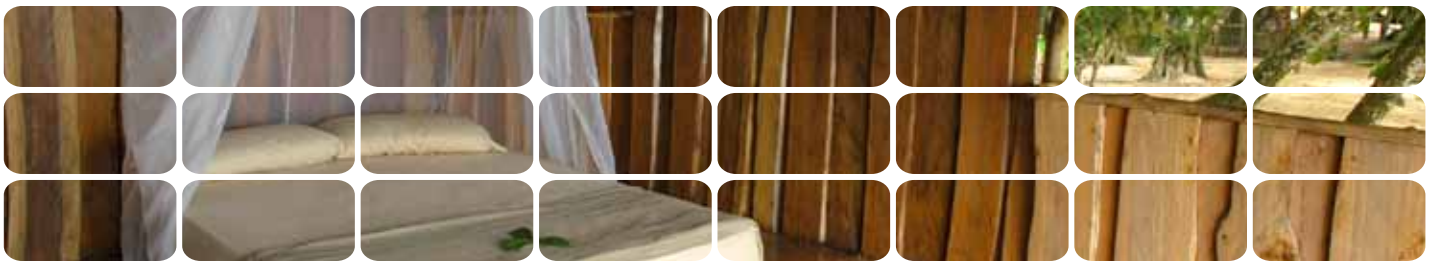


AMAZON MALARIA INITIATIVE

PROGRESS IN PREVENTION AND CONTROL



Pan American Health Organization

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REGIONAL OFFICE FOR THE Americas

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WHAT IS AMI?

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in the Amazon basin. Because malaria transmission transcends international borders, AMI takes a regional approach that complements country-specific activities carried out by 11 participating South and Central American countries. AMI strengthens participating countries' malaria control programs to adequately identify, support, and implement interventions against malaria, as well as to incorporate best practices into their work, to adapt responses to the ever-changing malaria context, to consider populations living in special circumstances, to monitor the emergence and spread of resistance to antimalarials, and to address the risks of malaria reemergence. Through AMI, USAID helped to create the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) and promotes South-South collaboration among participating countries with support from international technical partners. The established partnerships have helped to ensure that investments in drug resistance and epidemiological surveillance, vector control, prevention, diagnosis, and treatment for malaria control are effective and sustainable, as well as contribute to health systems strengthening. The novel structure of this multi-pronged effort is led by a Steering Committee that allows for shared management and coordination among USAID, the Pan American Health Organization (PAHO), and other technical and country partners.

AMI'S MULTI-PRONGED APPROACH

- Improvement of access to quality diagnosis and treatment
- Epidemiological surveillance
- Monitoring of efficacy of antimalarial medicines
- Prevention and containment of resistance to antimalarial medicines
- Vector surveillance and control
- Integrated vector management
- Quality assurance and control of pharmaceuticals and other antimalarial supplies
- Health systems strengthening
- Communication, advocacy, and networking

AMI participates in:

World Malaria Day
April 25

Malaria Day in the Americas
November 6

PHOTO: LINKS MEDIA
MAP: ALL-FREE-DOWNLOAD.COM

MALARIA IN THE AMERICAS

Malaria is a vector-borne disease endemic to 21 countries in the Americas. It is both preventable and treatable, however no vaccine currently exists. Malaria is a bellwether of the management and quality of public services in countries of the Amazon basin and Central America. The Americas region has two main species of malaria: *Plasmodium vivax,* the predominant malaria parasite, and *Plasmodium falciparum*, a more dangerous but less frequent form of the disease that can be fatal.

Efforts to protect the people of the Americas against malaria are working.

From 2000–2013, the number of cases of malaria in the region declined by 76%. Mortality due to malaria fell by 79%.

However, 120 million people who live in malaria-endemic regions are still at risk.

PROGRESS IN AMI COUNTRIES

Reductions in Malaria Incidence

Significant progress has been made in malaria prevention and control through a variety of interventions in AMI partner countries. All participating AMI countries have achieved or are on track to achieve the Roll Back Malaria/Millennium Development Goals for malaria control by 2015.

From 2000 to 2013, six AMI countries achieved reductions of >75% in malaria incidence: Belize, Ecuador, Guatemala, Honduras, Nicaragua, and Suriname. Two more AMI countries — Brazil and Colombia — are projected to achieve reductions of >75% by 2015. Peru and Panama are projected to achieve a reduction of 25%–50% by 2015, and only Guyana had an increase in the number of cases during the period.

PHOTO: JULIE DE CARVALHO
BACKGROUND PHOTO: RONEN BOIDEK. SHUTTERSTOCK

As malaria changes — AMI adapts

Enduring vigilance is needed to keep up with rapidly evolving malaria parasites. In the 1990s, *P. falciparum* was documented to be resistant to the antimalarial drug chloroquine in the Amazon basin. This prompted USAID to help create the RAVREDA network to address the problem. RAVREDA is now among the most effective regional surveillance networks for antimalarial resistance in the world. As progress was made in introducing artemisinin-based combination therapy (ACT), the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

Today, both Central American and Amazon basin countries face the possible emergence of resistance to antimalarial drugs including chloroquine and artemisinin derivatives. In addition, countries need to confront the challenge of malaria control in low transmission settings and of populations living under special circumstances. International technical partners collaborate with countries to monitor, prevent and contain antimalarial drug resistance, as well as to address malaria among remote, scattered, and mobile populations such as gold miners and migrant agricultural workers.

AMI responds to changes in the enabling environment for malaria control

Decentralization of health systems, low levels of funding for national malaria control programs (NMCPs) in the region and other issues are being addressed through AMI's regional, collaborative approach. For this reason, USAID promotes health systems strengthening, advocacy, and the development of differentiated approaches to malaria prevention and control for use in varied epidemiological contexts.

PARTNERSHIPS ARE KEY TO AMI'S SUCCESS

PHOTO: PAHO

AMI is a collaborative effort that brings together participating countries and international technical partners. Ministries of health and NMCPs are essential partners that carry out malaria prevention and control activities in countries of the Amazon basin and Central America, and collaborate in an ongoing exchange of information and expertise. International technical partners cooperate with the countries in a variety of complementary roles:

United States Agency for International Development (USAID)

Supports effective regional malaria control efforts by providing technical assistance and directing resources using a common framework to select and coordinate activities in priority countries, with the aim of improving efforts at the regional and national levels and contributing to the institutionalization of proven interventions on multiple levels (i.e. regional, national, sub-national).

Pan American Health Organization (PAHO)

Coordinates the development of standard policies, strategic plans, interventions, guidelines, and protocols in priority countries together with USAID. Provides technical assistance (TA) in malaria prevention, surveillance, early detection, diagnosis and treatment, and containment of outbreaks. Carries out integrated vector management. Supports health systems strengthening, country-level capacity building, and operational research. Procures antimalarial medicines on behalf of selected countries.

United States Centers for Disease Control and Prevention (CDC)

Provides TA and training in epidemiological surveillance, monitoring of efficacy of and resistance to antimalarials (using *in vivo* efficacy studies, *in vitro* and molecular biology tools), vector surveillance and control, malaria diagnosis, etc.

Management Sciences for Health (MSH)/Systems for Improved Access to Pharmaceuticals and Services (SIAPS)

PHOTO: GRACY OBUCHOWICZ

Conducts operational research and provides TA in pharmaceutical management with a focus on medicine availability, prescribing and dispensing practices, patient adherence to treatment regimens, and supply chain management for malaria medicines and supplies.

United States Pharmacopeial Convention (USP)/Promoting the Quality of Medicines (PQM)

Provides specialized TA to institutionalize approaches to quality assurance for antimalarials, with a focus on quality control monitoring throughout the supply chain, strengthening official medical control laboratories' capacity to analyze medicines and provide consistent and reliable results, and strengthening of medicine regulatory authorities.

Links Media

Provides communication and advocacy strategies to lay the groundwork for sustainability of regional collaborative efforts for malaria control. Identifies appropriate audiences, key messages, channels, information, education and communication (IEC)/behavior change communication (BCC) interventions, and other activities for information dissemination, communication and advocacy. Develops evidence-based messages and materials for effective engagement of policymakers, partners and stakeholders.

COVER PHOTOS: LINKS MEDIA, CDC, ISTOCK

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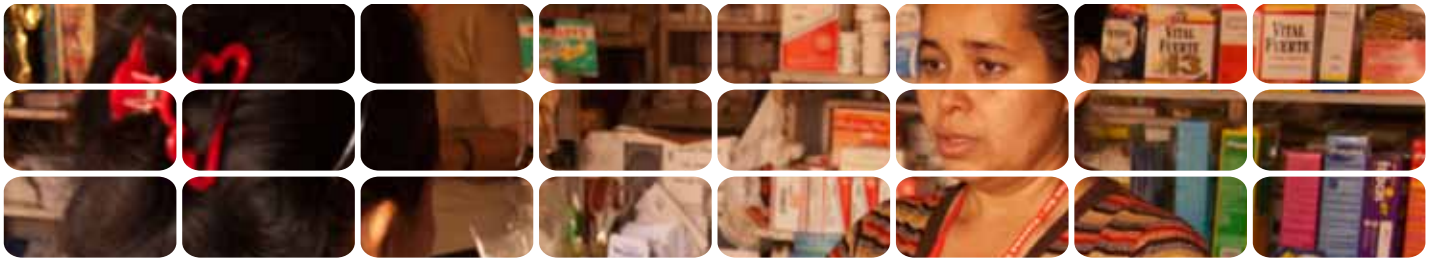
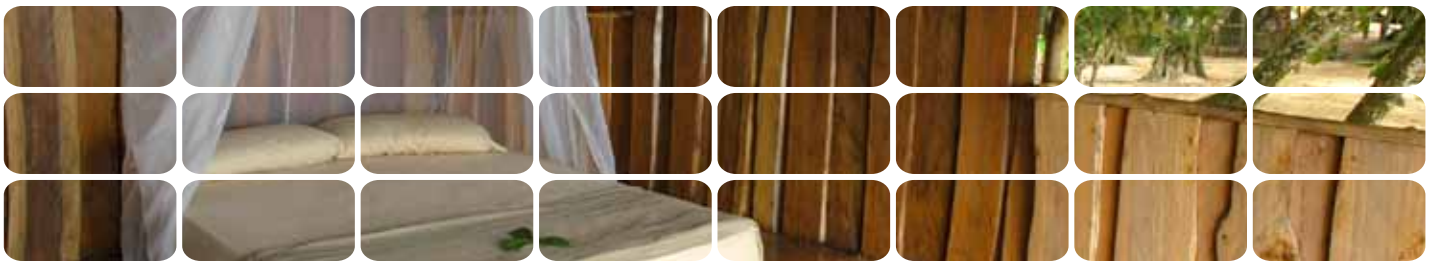


INICIATIVA AMAZÔNICA CONTRA A MALÁRIA

PROGRESSO NOS ESFORÇOS DE PREVENÇÃO E CONTROLE



Organização Pan-Americana da Saúde

Organização Mundial da Saúde
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O QUE É AMI?

A Agência dos Estados Unidos para o Desenvolvimento Internacional (USAID) lançou a Iniciativa Amazônica contra a Malária (AMI) em 2001 para melhorar a prevenção e o controle da malária na Bacia Amazônica. Visto que a transmissão da malária transcende fronteiras internacionais, a AMI tem uma abordagem regional que complementa as atividades específicas de cada país realizadas por 11 países participantes da América do Sul e Central. A AMI fortalece programas de controle da malária nos países participantes para identificar, apoiar e implementar de forma adequada intervenções contra a malária. Além disso, ajuda os países a incorporar as melhores práticas em seu trabalho, adaptar as respostas ao contexto da malária em constante mudança, desenvolver estratégias diferenciadas para o trabalho em áreas com populações que vivem em circunstâncias especiais, monitorar o surgimento e a disseminação da resistência aos antimaláricos, e enfrentar os riscos de ressurgimento da malária. Através da AMI, a USAID ajudou a criar a Rede Amazônica de Vigilância da Resistência aos Antimaláricos (RAVREDA) e promove a cooperação Sul-Sul entre os países participantes, com o apoio de parceiros técnicos internacionais. As parcerias estabelecidas têm ajudado a garantir que os investimentos no monitoramento de resistência aos medicamentos e vigilância epidemiológica, controle de vetores, e prevenção, diagnóstico e tratamento para o controle da malária sejam eficazes e sustentáveis, e que também contribuam para o reforço dos sistemas de saúde. A estrutura inovadora desse esforço multifacetado é liderada por um Comitê Diretor, que permite uma gestão e coordenação compartilhadas entre a USAID, a Organização Pan-Americana da Saúde (OPAS/OMS), outros parceiros técnicos e países.

ABORDAGEM MULTIFACETADA DA AMI

- Melhoria do acesso ao diagnóstico e tratamento de qualidade
- Vigilância epidemiológica
- Monitoramento da eficácia dos medicamentos antimaláricos
- Prevenção e contenção da resistência aos medicamentos antimaláricos
- Vigilância e controle vetorial
- Manejo integrado de vetores
- Garantia de qualidade e controle de produtos farmacêuticos e outros suprimentos antimaláricos
- Fortalecimento dos sistemas de saúde
- Comunicação, assistência técnica e *networking*

A AMI participa de:

O Dia Mundial contra a Malária
25 de abril

O Dia da Malária nas Américas
6 de novembro

FOTO: LINKS MEDIA
MAPA: ALL-FREE-DOWNLOAD.COM

MALÁRIA NAS AMÉRICAS

A malária é uma doença transmitida por vetores endêmica em 21 países das Américas. É prevenível e tratável; porém, não existe vacina atualmente. A malária pode ser pensada como um termômetro da gestão e da qualidade dos serviços públicos nos países da Bacia Amazônica e na América Central. As Américas têm duas espécies principais de malária: *Plasmodium vivax,* parasita predominante da malária, e *Plasmodium falciparum,* uma forma mais perigosa, mas menos frequente da doença que pode ser fatal.

Os esforços para proteger os povos das Américas contra a malária estão funcionando.

De 2000 a 2013, o número de casos de malária na região diminuiu 76%. A mortalidade por malária sofreu uma queda de 79%.

No entanto, 120 milhões de pessoas que vivem em regiões endêmicas da malária ainda estão em risco.

PROGRESSO EM PAÍSES DA AMI

Reduções na incidência da malária

Avanços significativos foram obtidos na prevenção e controle da malária através de uma variedade de intervenções em países parceiros da AMI. Todos os países que participam da AMI já alcançaram ou estão a caminho de alcançar as metas de redução da malária da parceria *Roll Back Malaria* e dos Objetivos de Desenvolvimento do Milênio para o ano 2015. De 2000 a 2013, seis países da AMI conseguiram reduções de mais de 75% na incidência da malária: Belize, Equador, Guatemala, Honduras, Nicarágua e Suriname. Mais dois países da AMI — Brasil e Colômbia — devem atingir reduções de mais de 75% em 2015. O Peru e o Panamá deverão alcançar uma reduções de 25% a 50% até 2015, e apenas a Guiana teve um aumento no número de casos durante o período.

FOTO: JULIE DE CARVALHO
FOTO DO FUNDO: RONEN BOIDEK. SHUTTERSTOCK

À medida que a malária muda — a AMI se adapta

Uma vigilância duradoura é necessária para acompanhar a rápida evolução dos parasitas da malária. Na década de 1990, *P. falciparum,* o parasita que causa uma malária grave e potencialmente fatal, foi documentado como sendo resistente à droga antimalárica cloroquina na Bacia Amazônica. Isso levou a USAID a ajudar a criar a rede RAVREDA para resolver o problema. A RAVREDA está agora entre as redes de vigilância regionais mais eficazes para a resistência contra a malária no mundo. Na medida em que o progresso foi feito na introdução de tratamento combinado baseado em artemisinina (TCA), as áreas de vigilância epidemiológica, controle de vetores e fortalecimento de sistemas receberam mais atenção.

Hoje, tanto os países da América Central quanto os da Bacia Amazônica enfrentam o possível surgimento de resistência a drogas antimaláricas incluindo derivados de cloroquina e artemisinina. Além disso, os países precisam enfrentar o desafio de controle da malária em situações de baixa transmissão e das populações que vivem em circunstâncias especiais. Parceiros técnicos internacionais colaboram com os países para monitorar, prevenir e conter a resistência aos medicamentos antimaláricos, bem como para tratar a malária entre populações remotas, dispersas e itinerantes, como garimpeiros e trabalhadores agrícolas migrantes.

A AMI responde a mudanças no contexto do controle da malaria

A descentralização dos sistemas de saúde, os baixos níveis de financiamento para os programas nacionais de controle da malária (PNCMs) na região e outras questões estão sendo tratadas através de uma abordagem regional e colaborativa da AMI. Por essa razão, a USAID promove o fortalecimento dos sistemas de saúde, assistência técnica, bem como o desenvolvimento de abordagens diferenciadas para a prevenção e controle da malária para uso em contextos epidemiológicos variados.

AS PARCERIAS SÃO A CHAVE DO SUCESSO DA AMI

FOTO: OPAS/OMS

A AMI é um esforço colaborativo que reúne os países participantes e parceiros técnicos internacionais. Ministérios da saúde e os PNCMs são parceiros essenciais que realizam as atividades de prevenção e controle da malária e nos países da Bacia Amazônica e na América Central e colaboram em um intercâmbio contínuo de informações e conhecimentos. Parceiros técnicos internacionais cooperam com os países em uma variedade de funções complementares:

Agência dos Estados Unidos para o Desenvolvimento Internacional (USAID)

Apoia os esforços eficazes de controle regional da malária, prestando assistência técnica e direcionando recursos por meio de um modelo comum para selecionar e coordenar as atividades nos países prioritários, com o objetivo de melhorar os esforços nos âmbitos regional e nacional, e contribuindo para a institucionalização de intervenções de eficácia comprovada em vários níveis (ou seja, regional, nacional, subnacional).

Organização Pan-Americana da Saúde (OPAS/OMS)

Coordena o desenvolvimento de políticas, planos estratégicos, intervenções, diretrizes e protocolos padronizados em países prioritários em conjunto com a USAID. Oferece assistência técnica na prevenção, vigilância, detecção precoce, diagnóstico e tratamento da malária, e contenção de surtos. Realiza controle integrado de vetores. Apoia o reforço dos sistemas de saúde, a capacitação em nível nacional e a pesquisa operacional. Obtém medicamentos antimaláricos em nome de vários países.

Centros de Controle e Prevenção de Doenças dos EUA (CDC)

Oferece assistência técnica e formação em vigilância epidemiológica, monitoramento da eficácia de antimaláricos e resistência a eles (por meio de estudos de eficácia *in vivo, in vitro* e ferramentas de biologia molecular), vigilância e controle vetorial, diagnóstico de malária, etc.

Management Sciences for Health (MSH)/Sistemas para Melhorar o Acesso a Produtos e Serviços Farmacêuticos (SIAPS)

FOTO: GRACY OBUCHOWICZ

Realiza pesquisas operacionais e fornece assistência técnica em gestão farmacêutica com foco na disponibilidade de medicamentos, práticas de prescrição e distribuição, adesão do paciente aos regimes de tratamento e gestão da cadeia de abastecimento de medicamentos e suprimentos contra a malária.

United States Pharmacopeial Convention (USP)/Promovendo a Qualidade de Medicamentos (PQM)

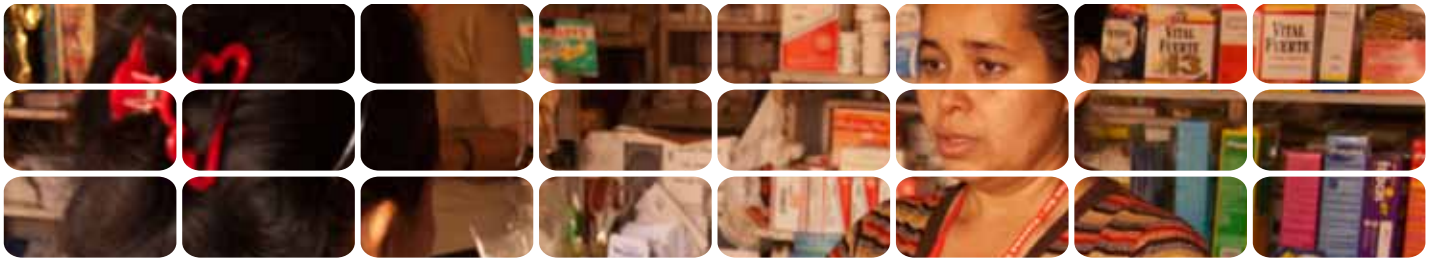
Fornece assistência técnica especializada para institucionalizar a garantia da qualidade dos antimaláricos, com foco no monitoramento do controle de qualidade em toda a cadeia de abastecimento, fortalecendo a capacidade dos laboratórios oficiais para analisar os medicamentos e fornecer resultados consistentes e confiáveis, e fortalecendo as autoridades reguladoras de medicamentos.

Links Media

Fornece estratégias de comunicação e apoio para lançar as bases para a sustentabilidade de esforços colaborativos regionais para o controle da malária. Identifica o público-alvo, mensagens-chave, canais, intervenções de informação, educação e comunicação (IEC) e/ou de comunicação para a mudança de comportamento (CMC), e outras atividades de divulgação da informação, comunicação e defesa de políticas públicas adequadas. Desenvolve mensagens e materiais baseados em evidências para o envolvimento efetivo das partes interessadas.

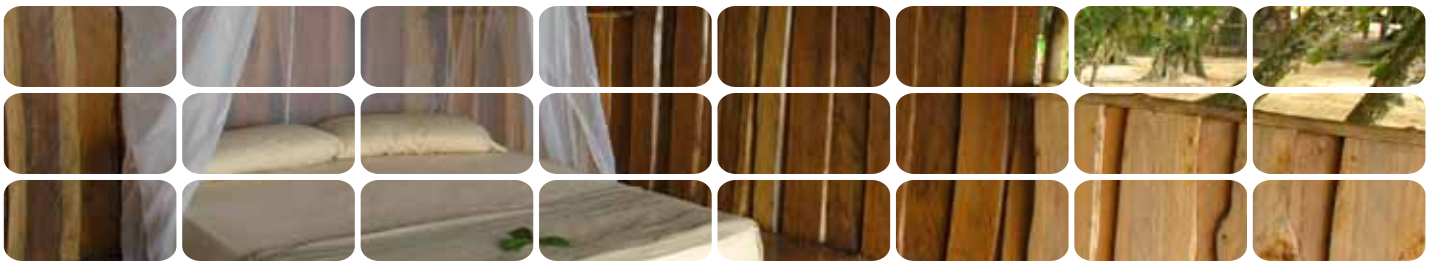
FOTOS DE CAPA: LINKS MEDIA, CDC, ISTOCK

USAID
DEL PUEBLO DE LOS ESTADOS UNIDOS DE AMÉRICA



INICIATIVA AMAZÓNICA CONTRA LA MALARIA

PROGRESO EN PREVENCIÓN Y CONTROL



Organización Panamericana de la Salud

Organización Mundial de la Salud
OFICINA REGIONAL PARA LAS Américas

CDC
SAFER·HEALTHIER·PEOPLE

SIAPS
Systems for Improved Access to Pharmaceuticals and Services

USAID FROM THE AMERICAN PEOPLE | USP
PROMOTING THE QUALITY OF MEDICINES

¿QUÉ ES LA AMI?

La Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) lanzó en 2001 la Iniciativa Amazónica contra la Malaria (AMI, por sus siglas en inglés) para mejorar la prevención y el control de la malaria en la cuenca del Amazonas. Como la trasmisión de la malaria trasciende las fronteras internacionales, la AMI asume un enfoque regional que complementa las actividades específicas de cada país, llevadas a cabo por 11 países participantes de Sur y Centro América. AMI fortalece los programas de control de la malaria de los países participantes para identificar, apoyar e implementar adecuadamente las intervenciones contra la malaria, así como para incorporar a su trabajo las mejores prácticas, adaptar las respuestas al contexto en permanente cambio, desarrollar estrategias diferenciales para trabajar en áreas con poblaciones que viven en circunstancias especiales, abordar el riesgo de la reaparición de la malaria y monitorear la aparición y propagación de la resistencia a los antimaláricos. A través de AMI, la USAID ayudó a crear la Red Amazónica para la Vigilancia de la Resistencia a los Antimaláricos (RAVREDA) y promueve la colaboración Sur-Sur entre los países con el apoyo de los socios técnicos internacionales. Las asociaciones establecidas han ayudado a asegurar que las inversiones en la resistencia farmacológica y vigilancia epidemiológica, control de vectores y prevención, diagnóstico y tratamiento para el control de la malaria sean eficaces y sostenibles, y contribuyan al fortalecimiento de los sistemas de salud. La nueva estructura de este esfuerzo múltiple está dirigida por un Comité Directivo que permite compartir el manejo y la coordinación entre la USAID, la Organización Panamericana de la Salud/Organización Mundial de la Salud (PAHO/WHO), otros socios técnicos y países.

ENFOQUE MULTIFACÉTICO DE AMI

- Mejora del acceso al diagnóstico y tratamiento de calidad
- Vigilancia epidemiológica
- Monitoreo de la eficacia de los medicamentos antimaláricos
- Prevención y control de la resistencia a los medicamentos antimaláricos
- Vigilancia y control de vectores
- Manejo integrado de vectores
- Garantía y control de calidad de los farmacéuticos y otros suministros contra la malaria
- Fortalecimiento de los sistemas de salud
- Comunicación, abogacía y trabajo en redes

AMI participa en:

Día Mundial de la Malaria
25 de abril

Día de la Malaria en las Américas
6 de noviembre

FOTO: LINKS MEDIA
MAPA: ALL-FREE-DOWNLOAD.COM

MALARIA EN LAS AMÉRICAS

La malaria es una enfermedad transmitida por vectores, endémica a 21 países de las Américas. Aun cuando es una enfermedad tanto prevenible como tratable, todavía no existe una vacuna. La malaria es un indicativo del manejo y la calidad de los servicios públicos en países de la cuenca del Amazonas y Centroamérica. La región de las Américas tiene dos especies principales de malaria: *Plasmodium vivax,* el parásito predominante de la malaria y el *Plasmodium falciparum,* una forma más peligrosa pero menos frecuente de la enfermedad que puede ser mortal.

Los esfuerzos para proteger a las personas de las Américas contra la malaria están funcionando.

Desde 2000–2013, la cantidad de casos de malaria en la región ha declinado un 76%. La tasa de mortalidad debido a la malaria se redujo un 79%.

Sin embargo, 120 millones de personas que viven en regiones donde la malaria es endémica siguen en riesgo.

PROGRESO EN LOS PAÍSES DE AMI

Reducciones en la incidencia de la malaria

Se han logrado avances significativos en la prevención y control de la malaria a través de una variedad de intervenciones en los países socios de la AMI. En 2015, todos los países participantes de la AMI habrán logrado o estarán en camino de lograr las metas para Hacer Retroceder la Malaria (*Roll Back Malaria*) y los Objetivos de Desarrollo del Milenio (*Millennium Development Goals*) para el control de la malaria. De 2000 a 2013, seis países de AMI lograron una reducción por encima del 75% en la incidencia de la malaria: Belice, Ecuador, Guatemala, Honduras, Nicaragua y Surinam. Dos países más, Brasil y Colombia, tienen proyectado alcanzar en el 2015 una reducción por encima del 75%. Perú y Panamá tienen proyectado alcanzar en el 2015 un reducción del 25 al 50% y solo Guyana ha tenido un incremento en la cantidad de casos durante este periodo.

FOTO: JULIE DE CARVALHO
FOTO DEL FONDO: RONEN BOIDEK. SHUTTERSTOCK

AMI se adapta — a medida que la malaria cambia

Se necesita una vigilancia duradera para mantenerse al día con la rápida evolución de los parásitos de la malaria. En la década de 1990, se documentó en la cuenca del Amazonas que el *P. falciparum,* el parasito que causó la malaria grave y potencialmente mortal en las Américas, era resistente al medicamento antimalárico cloroquina. Esto incitó a la USAID a ayudar a crear la red RAVREDA para abordar el problema. RAVREDA es ahora una de las redes regionales más eficaces para la vigilancia de la resistencia antimalárica en el mundo. A medida que progresó la introducción del tratamiento combinado basado en artemisinina (TCA), las áreas de vigilancia epidemiológica, control de vectores y fortalecimiento de sistemas recibieron más atención.

Hoy en día, tanto los países de Centroamérica como de la cuenca del Amazonas enfrentan la posible aparición de la resistencia a los medicamentos antimaláricos que incluyen los derivados de la artemisinina y la cloroquina. Además, los países deben enfrentar el reto de controlar la malaria en situaciones de baja trasmisión y de poblaciones que viven en circunstancias especiales. Los socios técnicos internacionales colaboran con los países para monitorear, prevenir y contener la resistencia a los medicamentos antimaláricos, así como para abordar la malaria entre las poblaciones remotas, dispersas y móviles como los mineros de oro y trabajadores agrícolas migrantes.

AMI responde a los cambios en el entorno que posibilita el control de la malaria

La descentralización de los sistemas de salud, los bajos niveles de financiamiento para los programas nacionales del control de la malaria (PNCM) en la región y otros asuntos se están abordando a través del enfoque colaborativo regional de la AMI. Por esa razón, la USAID promueve el fortalecimiento de los sistemas de salud, la abogacía y la planeación de enfoques diferenciales para la prevención y el control de la malaria para su uso en contextos epidemiológicos variados.

LOS SOCIOS SON FUNDAMENTALES PARA EL ÉXITO DE AMI

FOTO: OPS/OMS

AMI es un esfuerzo colaborativo que une a los países participantes y socios técnicos internacionales. Los ministerios de salud y los PNCM son socios esenciales que llevan a cabo las actividades de prevención y control de la malaria en países de la cuenca del Amazonas y Centroamérica, y colaboran en un intercambio permanente de información y conocimientos. Los socios técnicos internacionales cooperan con los países en una variedad de funciones complementarias:

Agencia de los Estados Unidos para el Desarrollo Internacional (USAID)

Apoya los esfuerzos eficaces regionales para el control de la malaria prestando asistencia técnica y dirigiendo los recursos mediante el uso de un marco de trabajo común para seleccionar y coordinar las actividades en los países prioritarios, con el fin de mejorar los esfuerzos en el ámbito regional y nacional y contribuir con la institucionalización de intervenciones probadas en múltiples ámbitos (regional, nacional, subnacional).

Organización Panamericana de la Salud/Organización Mundial de la Salud (OPS/OMS)

Coordinan junto con la USAID el desarrollo de políticas, planes estratégicos, intervenciones, pautas y protocolos estandarizados en los países prioritarios. Presta asistencia técnica para la prevención, vigilancia, detección temprana, diagnóstico y tratamiento de la malaria y contención de las epidemias. Llevan a cabo el manejo integrado de los vectores. Apoyan el fortalecimiento de los sistemas de salud y de capacidades en el ámbito nacional, y las investigaciones operativas. Adquieren medicamentos antimaláricos a nombre de algunos países.

Centros para el Control y la Prevención de Enfermedades (CDC) de los Estados Unidos

Proveen asistencia técnica y capacitación en vigilancia epidemiológica, monitoreo de la eficacia y resistencia a los antimaláricos (mediante estudios de eficacia *in vivo, in vitro* y herramientas de biología molecular) vigilancia y control de vectores, diagnóstico de la malaria, etc.

Management Sciences for Health (MSH)/Sistemas para Mejorar el Acceso a los Farmacéuticos y los Servicios (SIAPS)

FOTO: GRACY OBUCHOWICZ

Lleva a cabo investigaciones operativas y presta asistencia técnica en el manejo farmacéutico con enfoque en la disponibilidad de medicamentos, prescripción y prácticas de dispensación, acatamiento del paciente a los regímenes de tratamiento, y manejo de la cadena de suministros de medicamentos y provisiones para la malaria.

United States Pharmacopeial Convention (USP)/Promoción de la Calidad de Medicamentos (PQM)

Presta asistencia técnica especializada para institucionalizar enfoques con el fin de garantizar la calidad de los antimaláricos, con énfasis en la supervisión del control de calidad de todas las cadenas de suministros, el fortalecimiento de la capacidad de los laboratorios oficiales de control de medicamentos para analizar los medicamentos y proporcionar resultados coherentes y confiables, y el fortalecimiento de las autoridades reguladoras de medicamentos.

Links Media

Provee estrategias de comunicación y abogacía para sentar las bases para la sostenibilidad de los esfuerzos colaborativos regionales para el control de la malaria. Identifica las audiencias adecuadas, los mensajes clave, canales, intervenciones de Información, Educación y Comunicación (IEC)/comunicación para el cambio de comportamiento, y otras actividades para la difusión de información, comunicación y abogacía. Diseña mensajes con base en pruebas y materiales para lograr el compromiso de las autoridades responsables, socios y partes interesadas.

FOTOS DE LA PORTADA: LINKS MEDIA, CDC, ISTOCK

Annex 4: Email Alerts

January 20, 2015

USAID
FROM THE AMERICAN PEOPLE

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AMAZON MALARIA INITIATIVE

New AMI success story
Colombia takes routine testing of malaria medicines to the next level to ensure quality in endemic areas. Download in English / Spanish.

Nueva historia exitosa AMI
Colombia eleva las pruebas habituales de los

AMI Events Calendar
Check out the events calendar on the AMI website to know what's happening in 2015!

Calendario de Eventos de AMI
Consulte el calendario de eventos en el sitio web de AMI para saber lo que va a

American Public Health Association (APHA) Conference 2015
The 2015 APHA annual conference deadline is approaching! International Health submissions are due by February 13, 2015. Learn more here.

Conferencia de la

June 18, 2015

USAID
FROM THE AMERICAN PEOPLE

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AMAZON MALARIA INITIATIVE

New AMI success stories
The region of Loreto, Peru takes center stage in two new success stories available at the AMI website. AMI technical partners provided

Call for nominations for Malaria Champions of the Americas 2015 closing soon!
Monday, June 22, 2015 is the deadline to nominate organizations for the

Genetic variations in Guyana and Suriname's *P. falciparum* parasite populations featured in recent PlosOne article
Researchers from Guyana, Suriname, and the CDC

FOR IMMEDIATE RELEASE

October 28, 2014

Links Media Contact: Julie de Carvalho
Telephone: 301 987 5495 Ext. 109
Email: jdecarvalho@linksmedia.net
Website: usaidami.org

Washington, DC – To commemorate the eighth annual Malaria Day in the Americas, the Pan American Health Organization (PAHO/WHO) will co-host an event focused on accelerating regional malaria elimination. Sponsoring organizations of the event include PAHO/WHO, the PAHO Foundation, the Milken Institute School of Public Health at George Washington University (GWU), and the Center for Communication Programs at the Johns Hopkins Bloomberg School of Public Health.

The event will feature videos, presentations, and discussions on malaria elimination in the region of the Americas with a focus on malaria elimination. The work of the nominees for Malaria Champions of the Americas 2014 will also be highlighted.

What: Malaria in the Americas Forum 2014: *Accelerating Malaria Elimination in the Americas*
When: Thursday, November 6, 2014
Time: 1:00 p.m. – 4:00 p.m.
Where: Main Building Auditorium, George Washington University Milken Institute School of Public Health, 950 New Hampshire Ave NW, Washington, DC – 20052
RSVP: Fill out the online form at: **http://goo.gl/QYICmG**

In collaboration with PAHO/WHO, the United States Agency for International Development (USAID) supports priority countries in Latin America and the Caribbean in their efforts to halt and begin to reverse the incidence of malaria through the Amazon Malaria Initiative (AMI). Malaria control is part of the United States government's comprehensive global health strategy to reduce the burden of disease and strengthen communities around the world. To learn more about AMI, please visit: usaidami.org.

###

Campeones contra el Paludismo o la Malaria en las Américas: Llamado a Nominaciones

View this email in your browser

AMAZON MALARIA INITIATIVE

Para distribución inmediata.

ORGANIZACIÓN PANAMERICANA DE LA SALUD www.paho.org

ORGANIZACIÓN MUNDIAL DE LA SALUD www.who.int

Noticias e información pública
Aviso a los medios

Día Mundial del Paludismo
25 de abril de 2015

"Campeones contra el Paludismo en las Américas" busca las mejores prácticas que contribuyeron con Objetivos de Desarrollo del Milenio

En el Día Mundial del Paludismo, se lanza el concurso que premiará los esfuerzos contra la malaria en la región, que han contribuido a alcanzar los Objetivos de Desarrollo del Milenio. Los casos de paludismo en las Américas están bajando.

Washington, D.C., 24 de abril de 2015 (OPS/OMS)—Las iniciativas contra el paludismo que han contribuido a alcanzar los Objetivos de Desarrollo del Milenio (ODM) de Naciones Unidas, podrán competir en el concurso de este año de "Campeones contra el Paludismo en las Américas" que se pone en marcha al conmemorarse el Día Mundial de la Malaria. Se podrán presentar nominaciones hasta el 22 de junio.

Este año, la búsqueda de los nuevos campeones contra el paludismo en las Américas se enfoca en identificar y honrar los esfuerzos innovadores que han demostrado ser exitosos en lograr la prevención, el control, eliminación, o prevención de reintroducción del paludismo, y que hayan contribuido de manera significativa a superar los desafíos que plantea la malaria en comunidades, países o toda la región de las Américas.

- La Fundación Universidad de Antioquia, Fondo Financiero de Proyectos de Desarrollo de Colombia, reconocida en 2013 por sus esfuerzos en aumentar el diagnóstico temprano, el tratamiento adecuado, entre otras acciones, que llegaron de manera efectiva a las poblaciones indígenas, mestizos y afrodescendientes.

- El Programa Nacional de Control del Paludismo de Paraguay, reconocido en 2012 por la reducción de la carga de malaria hacia la eliminación de la transmisión local, entre otras acciones.

Otros premios se han otorgado a la Municipalidad de Wampusirpi en el Departamento de Gracias a Dios, Honduras (2011), el Consejo Nacional de Malaria de Surinam (2010), y al Servicio Nacional de Control de Enfermedades Transmitidas por Vectores Artrópodos en el Ministerio de Salud de Ecuador y al Proyecto de Control de la Malaria en las Zonas Fronterizas de la Región Andina (PAMAFRO) del Organismo Andino (2009). Además, se han destacado iniciativas de Brasil, Colombia, Guatemala, México y Nicaragua.

La OPS trabaja con los países de las Américas para mejorar la salud y la calidad de la vida de su población. Fundada en 1902, es la organización internacional de salud pública más antigua del mundo. Actúa como la oficina regional para las Américas de la OMS y es la agencia especializada en salud del sistema interamericano.

La Fundación de Naciones Unidas crea alianzas público-privadas para abordar los problemas

El concurso es organizado por la Organización Panamericana de la Salud/Organización Mundial de la Salud (OPS/OMS), la Escuela de Salud Pública Milken de la Universidad de George Washington (MISPH es su sigla en inglés), y el Centro de Programas de Comunicaciones de la Escuela de Salud Pública Bloomberg de Johns Hopkins (JHU CCP es su sigla en inglés). Este año la Fundación ONU también se ha unido a la búsqueda del próximo campeón.

Menos casos de paludismo

En las Américas, la mortalidad por malaria se redujo en un 78% entre 2000 y 2013, mientras que el total de casos confirmados se redujo en un 64%. Dieciocho de los 21 países de la región con malaria endémica están en el camino de alcanzar una reducción del 75% en sus tasas de incidencia para 2015, como se estableció en los ODM.

El tema del Día Mundial del Paludismo, que se celebra cada 25 de abril, este año es "Invierte en el futuro. Derrota la Malaria" y busca llamar la atención sobre cómo el aumento de medidas de prevención y control han llevado a una reducción drástica de la carga del paludismo en muchos lugares de mundo.

Con el objetivo de destacar el último año para alcanzar las metas de los ODM, el concurso de Campeones contra el paludismo en las Américas 2015 reconocerá las iniciativas contra el paludismo que hayan contribuido a lograr alcanzar los ODM, incluyendo a los relacionados con la malaria al igual que a otras metas (erradicación de la pobreza extrema, promoción de la equidad de género y el empoderamiento de las mujeres, reducción de la mortalidad infantil, mejora de la salud materna, desarrollo de alianzas globales para el desarrollo, etcétera). Las nominaciones serán evaluadas en base a los éxitos alcanzados en materia de capacitación, innovación y equidad, colaboración e impacto.

Los ganadores del concurso Campeones contra el Paludismo en las Américas 2015 recibirán:

- La oportunidad de participar en tres entrenamientos para la formación de recursos de la OPS/OMS en prevención, control y eliminación de la malaria
- Un apoyo financiero de US$ 2.500 para las iniciativas vinculadas a la capacitación (por ejemplo, el entrenamiento o educación de personal, investigación, desarrollo de proyectos u otras actividades que incorporen estas habilidades para alcanzar metas y objetivos)

más urgentes del mundo y amplía el apoyo a la Organización de Naciones Unidas (ONU) a través de la promoción y difusión al público. Mediante campañas e iniciativas innovadoras, la Fundación conecta a personas, ideas y recursos para ayudar a la ONU a resolver problemas mundiales. La campaña "Nothing But Nets", una campaña global que busca salvar vidas mediante la prevención de la malaria, fue lanzada por la Fundación ONU en 2006.

El Centro de Salud Global de la George Washington University lleva adelante investigaciones innovadoras y actividades académicas para analizar los desafíos cambiantes en salud y en desarrollo ambiental que se enfrentan en este siglo. Trabajando con distintos socios, el centro busca reforzar los vínculos entre la ciencia y la política para mejorar la respuesta a temas críticos de la salud alrededor del mundo.

JHU CCP es un líder global en el campo de la comunicación estratégica en salud y la gestión del conocimiento, con programas activos en más de 30 países del mundo así como también en Estados Unidos. JHU CCP se asocia con distintas organizaciones para avanzar el conocimiento en comunicación en salud. Es parte del Departamento de Salud, Comportamiento y Sociedad de la Escuela de Salud Pública.

Para más información, por favor escriba a champion@paho.org o a malaria@paho.org

CONTACTOS:
Leticia Linn, linnl@paho.org, Tel. + 202 974 3440, Móvil +1 202 701 4005; Donna Eberwine-Villagrán, eberwind@paho.org, Tel. +1 202 974 3122, Móvil +1 202 316 5469; Sebastián Oliel, oliels@paho.org, Teléfono +1 202 974 3459, móvil 202 316 5679, Departamento de Comunicaciones, OPS/OMS – www.paho.org

Enlaces

Campeones contra la Malaria en las Américas 2015:
www.paho.org/paludismo2015

Videos de los Campeones contra la Malaria en las Américas 2014:
http://www.paho.org/hq/index.php?option=com_content&view=article&id=10195&Itemid=40263&lang=es

- Una placa conmemorativa

- La oportunidad de aparecer en diversas plataformas de comunicación de la OPS/OMS, Fundación ONU, la GWU-MISPH y en JHC-CCP, como un ejemplo de “buena práctica” contra la malaria.

Se aceptarán nominaciones desde el 25 de abril hasta el 22 de junio de 2015. Detalles y formularios para postulantes se pueden encontrar en el siguiente enlace: www.paho.org/paludismo2015

Los principales ganadores del concurso serán reconocidos durante la celebración del Día de Paludismo en las Américas, en noviembre de 2015.

Entre los ganadores anteriores figuran:

- El Centro Nacional de Control de Enfermedades Tropicales (CENCET) de República Dominicana, reconocido en 2014, por sus logros destacados y sostenidos en reducir la carga de la malaria, hacia la meta de eliminar la transmisión local de la enfermedad y contribuir a las actividades de eliminación de la filariasis linfática y el control del dengue.

OMS/ Día Mundial del Paludismo 2015: http://www.who.int/campaigns/malaria-day/2015/event/es/

Iniciativa T3: «Test. Treat. Track.» contra el paludismo: http://www.who.int/malaria/areas/test_treat_track/es/

Día del Paludismo en las Américas http://www.paho.org/hq/index.php?option=om_content&view=category&layout=log&id=1666&Itemid=1753&lang=es

OPS/Paludismo: http://new.paho.org/hq/index.php?option=com_content&task=view&id=2155&Itemid=1912

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http://twitter.com/opsoms **#malaria #paludismo**

AMAZON MALARIA INITIATIVE

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News and Public Information

Media Advisory

World Malaria Day

“Malaria Champions of the Americas” seeks nominations of malaria efforts that have advanced the Millennium Development Goals

Washington, DC, 24 April 2015 (PAHO) — Malaria initiatives that have contributed to the achievement of the United Nations Millennium Development Goals (MDGs) are eligible to compete in this year’s “Malaria Champions of the Americas” contest, which gets under way on World Malaria Day, April 25. Nominations may be submitted until June 22.

Currently in its seventh year, the annual search for the Malaria Champions of the

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World Malaria Day 2015: http://www.who.int/campaigns/malaria-day/2015/event/en/

WHO’s T3 (Test, Treat, Track) Campaign http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&gi

Americas aims to identify and honor innovative efforts that have demonstrated success in malaria prevention, control, elimination, or prevention of reintroduction, and that have significantly contributed to overcoming the challenges of malaria in communities, countries, or the Americas as a whole.

The awards are sponsored by the Pan American Health Organization/World Health Organization (PAHO/WHO), the George Washington University Milken Institute School of Public Health (MISPH), and the Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (JHU-CCP). The United Nations Foundation also joins this year's search as partner and co-presenter.

Malaria on the decline

In the Americas, deaths from malaria declined 78% between 2000 and 2013, and the number of cases declined by 64%. Eighteen of the 21 malaria-endemic countries in the region are on track to achieve a 75% reduction in their case incidence rates by 2015, as called for by the MDGs.

The theme of World Malaria Day is "Invest in the Future. Defeat Malaria." The campaign seeks to raise awareness of how increased measures for prevention and control have led to dramatic reductions in the burden of malaria in many places throughout the world.

To mark the final year for the achievement of the MDGs, the 2015 Malaria Champions of the Americas will recognize malaria initiatives that have contributed to achievement of MDG targets, including those related to malaria as

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Malaria Day in the Americas: http://www.paho.org/malariaday

Malaria Page (PAHO): http://new.paho.org/hq/index.php?option=com_content&task=view&id=2155&Itemid=1912

http://www.paho.org
http://www.facebook.com/PAHOWHO
http://www.youtube.com/pahopin
http://twitter.com/paho who **#malaria**

well as targets related to other MDGs (eradication of extreme poverty, promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, development of a global partnership for development, etc.). Nominations will be evaluated based on demonstrated achievements in capacity building, innovation and equity, collaboration, and impact.

Winners of the 2015 Malaria Champion of the Americas award will receive:

- The opportunity to participate in three PAHO capacity-building trainings for malaria prevention, control and elimination
- A US$2,500 funding support for malaria-related capacity-building efforts (e.g., staff training/education, research, project proposal development, or other activities that enhance skills and abilities to achieve goals and targets)
- A commemorative plaque
- The opportunity to be featured in various communication platforms of PAHO, UN Foundation, GWU-MISPH, and JHU-CCP as a “best practice” story on malaria.

Nominations for the 2015 Malaria Champions of the Americas will be accepted from 25 April to 22 June 2015. Full details and nomination forms can be downloaded atwww.paho.org/malaria2015

Top winners will be recognized during the commemoration of Malaria Day in the Americas in November 2015.

Previous awardees have included:

- The Centro Nacional de Control de Enfermedades Tropicales (CENCET) in the Dominican Republic, recognized in 2014 for outstanding and sustained achievements in reducing the burden of malaria, towards the goal of eliminating local transmission of the disease and contributing to lymphatic filariasis elimination activities and the control of dengue

- The Fundación Universidad de Antioquia (FUA) – Fondo Financiero de Proyectos de Desarrollo (FONADE) of Colombia, recognized in 2013 for successful efforts in increasing access to early diagnosis, adequate treatment, among other activities, which effectively reached indigenous populations, mestizos and Afro-descendant communities

- The National Malaria Program of Paraguay, recognized in 2012 for outstanding achievements in reducing the burden of malaria towards elimination of local transmission, among other activities.

Other past awardees include the Municipality of Wampusirpi in the Department of Gracias a Dios, Honduras (2011); the National Malaria Board of Suriname (2010); and the National Service for Control of Arthropod-Transmitted Diseases in Ecuador's Ministry of Health and the Project for Malaria Control in Andean Border Areas of the Andean Health Organization (2009). Other honorees have included Brazil, Colombia, Guatemala,

Mexico, and Nicaragua.

PAHO, founded in 1902, works with all the countries of the Americas to improve the health and quality of life of their peoples. It also serves as the Regional Office for the Americas of the World Health Organization (WHO).

The United Nations Foundation builds public-private partnerships to address the world's most pressing problems and broadens support for the United Nations through advocacy and public outreach. Through innovative campaigns and initiatives, the Foundation connects people, ideas, and resources to help the UN solve global problems. *The Nothing But Nets* campaign, a global, grassroots campaign to save lives by preventing malaria, was launched by the United Nations Foundation in 2006.

The George Washington University Milken Institute School of Public Health carries out innovative research and scholarly service activities to meet the evolving challenges of the 21st century global health and development environment. Working with a diverse group of partners, the Center aims to strengthen the link between science and policy and to improve responses to critical health issues around the world.

JHU-CCP is a global leader in the field of strategic health communication and knowledge management with active programs in more than 30 countries worldwide as well as the U.S. JHU-CCP partners with organizations worldwide to advance knowledge in the field of health

communication. It is part of the School's Department of Health, Behavior and Society.

For further information please e-mail champion@paho.org or malaria@paho.org

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CONTACT: Nils Hagen-Frederiksen
301-816-8268; nhf@usp.org (USP)

Dr. O. Jamie Chang, +(51-1)-6181266
jachang@usaid.gov (AMI)

Initiative to Support & Enhance Medicine Quality Assurance Launched in Latin American and the Caribbean

Rockville, Md., November 26, 2014 — Representatives from 16 Latin American and Caribbean countries laid the foundation for a regional mechanism for South-South collaboration for quality assurance of medicines during a workshop held in Lima, Peru on November 11-13, 2014.

The event, coordinated by the Promoting the Quality of Medicines (PQM) program in the context of the Amazon Malaria Initiative (AMI), brought together officials from Medicines Regulatory Authorities (MRAs) and Official Medicines Control Laboratories (OMCLs), as well as representatives from selected regional Schools of Pharmacy, to explore possible sustainable mechanisms to implement South-South collaboration for the quality assurance of medicines, using technical and human resources available in the Americas region.

In organizing the workshop, the PQM program, which is one component of the USAID-funded Amazon Malaria Initiative, recognized that to address the quality assurance needs of the region, it was necessary to expand the circle of stakeholders beyond those directly involved in medicines regulation in the countries participating in AMI, while building on their experience in networking.

"PQM has been collaborating extensively with the Pan American Health Organization and USP, to support countries' quality assurance and quality control systems in the region, in order to help ensure the quality of the medicines available to the population," said Dr. Victor Pribluda, PQM Manager of Latin American and Caribbean Programs. "This support contributed to OMCLs having enhanced technical capabilities and achieving ISO 17205 accreditation or WHO prequalification, and MRAs improving registration practices or establishing and institutionalizing the 3-level approach for the quality control of malaria and other medicines in decentralized areas. Although countries improved significantly their quality assurance systems throughout the years, there are still gaps in the region that need to be addressed. PQM envisioned this workshop as a forum to explore sustainable mechanisms for South-South collaboration, to facilitate the access and use of regional resources by countries' institutions, independently of the technical or financial assistance provided by international programs and organizations."

The participation of academia in the workshop was enthusiastically received by attendees since it recognized the benefits that both governmental institutions and academia may gain from these interactions; not only in services that Schools of Pharmacy could provide, but also in the impact that MRAs and OMCLs requirements may have on curricula at the learning institutions. Selected country representatives committed to follow up on the workshop initiative by collaborating with PQM and PAHO in writing a Concept Note detailing the conclusions and proposals developed during the meeting and also in developing

a rapid survey tool to assess regional capabilities and needs in terms of quality assurance of medicines. The Concept Note and the completed survey will be presented to the Ministries of Health for their evaluation of this novel regional framework for sustainable South-South collaboration.

A new meeting will be convened during 2015 to further advance on this project after feedback is received from countries' sanitary authorities; this meeting will also aim to expand representation to include additional countries in the Americas.

For more information, contact mediarelations@usp.org and jachang@usaid.gov.

###

The Promoting the Quality of Medicines (PQM) program is made possible by the generosity of the American people through the United States Agency for International Development (USAID).

USP – Global Expertise, Trusted Standards, Improved Health

The U.S. Pharmacopeial Convention (USP) is a global health organization that improves lives through public standards and related programs that help ensure the quality, safety, and benefit of medicines and foods. USP's standards are used worldwide. For more information about USP visit http://www.usp.org.

World Malaria Day 2015

April 25, 2015

Description: The Amazon Malaria Initiative (AMI) recognizes the need for more research on malaria in pregnancy in Latin America and the Caribbean. The US Centers for Disease Control and Prevention (CDC) estimate that 4 in 100 pregnancies in the region are affected by malaria. The negative effects of malaria in pregnancy include prematurity, low birth weight, miscarriages, stillbirth, and congenital malaria in infants. In addition, malaria in pregnant women can result in anemia, an increased risk of severe malaria, and even death. As most of the region has a low incidence of malaria, intermittent preventive treatment in pregnancy (IPTp) is not recommended in Latin America and the Caribbean.

Detecting and treating malaria in pregnant women is important in order to defeat malaria in Latin America and the Caribbean. AMI partners such as the CDC recommend that pregnant women be screened for malaria at each antenatal care visit. Pregnant women who are diagnosed with malaria should receive differentiated treatment according to the treatment guidelines of each country. As with the general population, prompt and effective diagnosis is encouraged along with the use of insecticide-treated bed nets.

AMI has developed a set of region specific Strategic Orientation Documents with guidelines for malaria. The Strategic Orientation Documents cover the topics of drug resistance monitoring in low-incidence settings, vector control, pharmaceutical management, and medicine quality control. They can be found on the AMI Resources page and on the RAVREDA website. Click Here.

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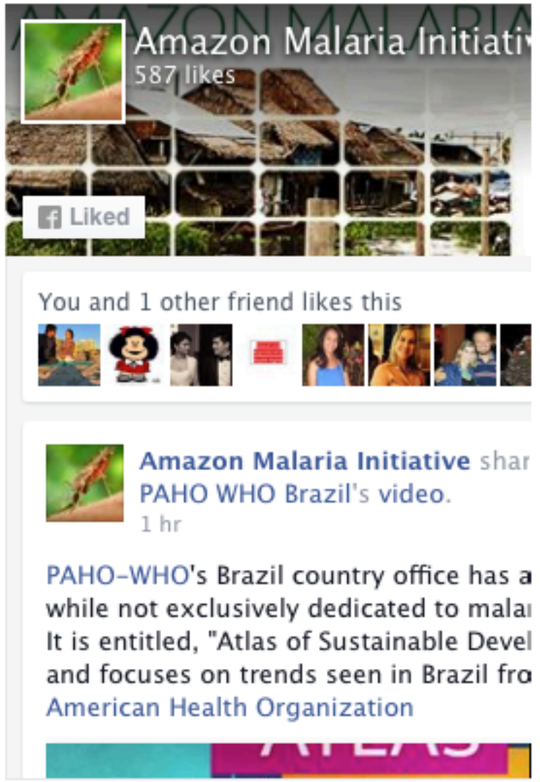

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Zoraida Portillo 5/24/2015, 8:59 PM

Re: Para SciDev.Net: Nuevos métodos de detección y respuesta a los brotes de malaria necesarios en América Latina y el Caribe

To Ricardo Echalar Copy Julie de Carvalho

Estimado Ricardo:
En primer lugar, muchas gracias por enviarnos este resumen de tan importante artículo.
Estamos interesados en escribir una información sobre la importancia del uso de la epidemiología molecular y los resultados de esta investigación por lo que agradeceré me ponga en contacto con el Dr. Baldeviano o alguno de los coautores para hacerle una entrevista que puede ser por teléfono, skype, personal o por esta vía, como mejor se acomode al investigador/a. Si es necesario, puedo remitir las preguntas con anticipación.
Mi único pedido es que por favor se pueda concertar la entrevista lo más pronto posible pues esta investigación fue publicada en la edición de mayo, por lo que sería ideal poder publicarla en nuestro portal regional antes que finalice este mes.
A la espera de su respuesta, me suscribo
Atentamente,
Zoraida.

Zoraida Portillo | (Latin America and Caribbean)
SciDev.Net
www.scidev.net
Email | zoraida.portillo@scidev.net

From: Ricardo Echalar <rechalar@linksmedia.net>
Sent: 22 May 2015 17:43
To: Zoraida Portillo
Cc: Julie de Carvalho
Subject: Para SciDev.Net: Nuevos métodos de detección y respuesta a los brotes de malaria necesarios en América Latina y el Caribe

Estimada Zoraida,

Le escribo hoy en relación con un artículo recién publicado que puede ser de interés para usted y sus lectores en SciDev.Net: Epidemiología Molecular del Brote de malaria *Plasmodium falciparum*, Tumbes, Perú, 2010-2012 en la revista *Enfermedades Infecciosas Emergentes* (http://wwwnc.cdc.gov/eid/article/21/5/14-1427_article). Muchas partes del mundo van hacia la eliminación de la malaria. Sin embargo, para eliminar la enfermedad se requerirán esfuerzos adicionales como el uso de la epidemiología molecular, especialmente en zonas con baja incidencia.

En 2010 la especie de malaria que más contribuye a la morbilidad y la mortalidad, *Plasmodium falciparum*, causó un brote en Tumbes donde no había casos de malaria causado por esa especie hacía varios años. El brote llevó los epidemiólogos a preguntarse sobre el origen de la cepa del parásito que causó el brote localizado. Querían saber si los parásitos mostraban signos de resistencia a los medicamentos antimaláricos y si las pruebas de diagnóstico rápido se les habría detectado sin el diagnóstico microscópico. Un estudio especial por investigadores peruanos y estadounidenses aplicó herramientas epidemiológicas modernas para identificar el origen de la cepa del parásito, y el análisis molecular mostró que la cepa del parásito responsable por el brote en Tumbes era genéticamente idéntica a una que se encuentra en Loreto. No era igual a los parásitos encontrados previamente en brotes a lo largo de la costa norte de Perú en la región de Tumbes. Esto reveló una evidencia importante sobre el movimiento del parásito y una rápida adaptación a diferentes condiciones ecológicas.

El uso de la epidemiología molecular tiene diversas implicaciones para los actores en el Perú que pueden ser muy relevantes para los otros países en Latinoamérica. Las principales implicaciones del estudio indican que, para responder a los brotes que son causados por parásitos nuevos o reintroducidos, el uso de la epidemiología molecular proporciona información valiosa al identificar marcadores genéticos que ayudan a contar una historia más detallada acerca de cómo se producen los brotes. Además, el estudio subraya la importancia de contar con sistemas robustas en lugar incluso después de la malaria se elimina para la vigilancia de enfermedades continuada en caso de reintroducción en una zona geográfica definida. El detectar y responder rápidamente pueden prevenir que los brotes se propaguen y pueden evitar el restablecimiento de la malaria en zonas de Latinoamérica y el Caribe donde la enfermedad ha ido en declive en los últimos años.

Avísame si tiene usted una pregunta sobre el artículo. Si no, voy a hacer el seguimiento la próxima semana para ver si usted está interesada en escribir sobre este artículo. Gracias.

Atentamente,

Ricardo Echalar

Ricardo Echalar, MPH | Technical Coordinator/Deputy Project Manager

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Links Media is a management consulting company providing expertise and business solutions in ICT.

From: Julie N. de Carvalho [mailto:jdecarvalho@linksmedia.net] **Sent:** Tuesday, July 21, 2015 9:58 AM **To:** 'americalatina@scidev.net' **Cc:** 'zoraida.portillo@scidev.net'; 'Ricardo Echalar' **Subject:** Ideia para SciDev.net: Colaboração regional estuda as variações genéticas dos parasitas da malária nas Américas **Importance:** High

Bom dia, Luisa,

Espero que você esteja bem. Gostaria de chamar a sua atenção para uma série de artigos publicados pelo CDC dos Estados Unidos juntamente com autores latinoamericanos. Essa série representa a primeira tentativa sistemática de comprovar a deleção dos genes HRP2 e HRP3 nos parasitas da málaria de espécie *Plasmodium falciparum* em países das Américas. Tais variações genéticas podem levar a falsos negativos quando se usam testes rápidos da malária baseados no HRP2. É extremamente importante divulgar o conhecimento sobre esse assunto, porque alguns prestadores de serviços da saúde ainda utilizam testes rápidos da malária com este antígeno, sem saber que eles não são confiáveis. Proximamente, vão sair os resultados da análise feita com amostras coletadas na Colômbia e no Brasil. Enquanto isso, os seguintes artigos já foram publicados em revistas científicas esse ano:

- Akinyi Okoth S et al. Variation in *Plasmodium falciparum* Histidine-Rich Protein 2 (*Pfhrp2*) and *Plasmodium falciparum* Histidine-Rich Protein 3 (*Pfhrp3*) Gene Deletions in Guyana and Suriname. *PLoS One* 2015, 10(5). URL: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126805
- Abdallah JF et al. Prevalence of *pfhrp2* and *pfhrp3* gene deletions in Puerto Lempira, Honduras. *Mal Journal* 2015, 14(19). URL: http://www.malariajournal.com/content/pdf/s12936-014-0537-7.pdf
- Houzé S et al. Combined deletions of *pfhrp2* and *pfhrp3* genes result in *Plasmodium falciparum* Malaria False-Negative Rapid Diagnostic *Test J Clin Microbiol* 2011. URL: http://jcm.asm.org/content/early/2011/05/04/JCM.00281-11.short

O problema da delecão do gen HRP2, em particular, foi identificado pela primeira vez no Peru em torno de 2010 (veja: Gamboa, D et al. A Large Proportion of *P. falciparum* Isolates in the Amazon Region of Peru Lack pfhrp2 and pfhrp3: Implications for Malaria Rapid Diagnostic Tests em *PloS One* 2010. URL: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0008091). Essa observação levou a USAID e o CDC, juntamente com outros parceiros da Iniciativa Amazônica contra a Malária (AMI), a apoiar um levantamento sistemático para caracterizar os genes dos parasitas em vários países endêmicos de malária para saber a extensão do problema. A série de estudos que está sendo lançada agora é o fruto dessa iniciativa regional, que busca proporcionar uma linha de base para que as autoridades nas Américas possam começar a monitorar as variações genéticas com regularidade. Felizmente, já contamos com os dados desse esforço sistemático que nos permite saber onde a deleção dos genes é um problema e onde não é. Procuramos usar esses dados

para informar os responsáveis na área da saúde.

Para finalizar, sabe-se que o parasita da malária vive em um estado de mutacões e adaptações constantes, por isso é tão importante acompanhar as mudanças no parasita para poder eliminar a doença. Acho que agora seria um momento oportuno para escrever um artigo no *SciDev.net* sobre esse assunto. Se você estiver interessada, posso lhe passar os contatos dos cientistas que realizaram as análises para serem entrevistados.

Atenciosamente,

Julie de Carvalho

Julie N. de Carvalho, MPH | Senior Project Manager T 301.987.5495, ext. 109 | F 301.987.5498 451 Hungerford Drive, Suite 503 • Rockville, MD 20850, USA www.linksmedia.net

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AMAZON MALARIA INITIATIVE

SUCCESS STORY

COLOMBIA TAKES ROUTINE TESTING OF MALARIA MEDICINES TO THE NEXT LEVEL TO ENSURE QUALITY IN ENDEMIC AREAS

Colombia has the second largest malaria burden in Latin America and the Caribbean. The most affected populations live in the Northern and Pacific Coast regions of the country, where transmission mainly occurs in rural areas. Historically, malaria medicines obtained from public and private establishments in remote areas of Colombia have been of varying quality.

Medicine quality is important for malaria control in order to prevent further parasitic infections. Substandard or counterfeit medicines may have negative consequences such as treatment failure and the emergence of antimalarial resistance. To address this, Amazon Malaria Initiative (AMI) partners PAHO/WHO and USP have successfully championed the policy adoption of the three-level approach for medicine quality control in Colombia. This approach applies sequential and complementary levels of quality control of increasing complexity. It provides a cost-effective, fast and reliable methodology to assess large numbers of medicines in the field.

In 2006, two Colombian pharmacists attended a training for trainers in Tumeremo, Venezuela on the use and management of GPHF-Minilabs™ (minilabs) as the Level 2 equipment for field analysis of medicines in the context of the three-level approach. One pharmacist worked as an analyst at the National Institute for Surveillance of Medicines and Food Safety (INVIMA), and the other at the public health laboratory in the department of Antioquia. Colombia received a donation of two minilabs through the PAHO/

Photo Credit: USP/PQM

Laboratory analysis of artemisinin-based combination therapies (ACTs), Bogota, Colombia 2013

WHO country office. The donated minilabs were strategically placed in the regional public health laboratories of Antioquia and Valle del Cauca, as the internationally trained pharmacist from Antioquia was able to assist with the training of another pharmacist in Valle del Cauca.

To enable implementation of this approach in all of Colombia's malaria-endemic departments, additional equipment and training were needed to perform the second level of analysis in the field. In 2012, a national project of

Pan American Health Organization
World Health Organization Regional Office for the Americas
CDC Safer·Healthier·People
SIAPS Systems for Improved Access to Pharmaceuticals and Services
USAID From the American People | USP Promoting the Quality of Medicines

the Global Fund to Fight AIDS, TB and Malaria purchased three minilabs for regional public health laboratories and USP donated two more minilabs at the request of INVIMA. The new minilabs supplemented the two that had been acquired in 2006 and allowed a total of seven departments from the national network of laboratories to perform Level 2 field tests. Through support from the Global Fund project, in collaboration with the pharmacist from the department of Antioquia, INVIMA, and PAHO/WHO, five department-level pharmacists received training on the use of the five new minilabs.

In accordance with the standardized regional protocol, the sampling of antimalarial medicines began at the municipal health institutions' pharmaceutical storage facilities, as well as at rural diagnosis and treatment centers in malaria-endemic areas. Several rounds of sampling were conducted in the departments of Antioquia, Valle del Cauca, Nariño, and Chocó using the existing minilab equipment. Subsequently, two more rounds of sampling were done with private pharmacies with collection carried out by way of simulated purchasing. The samples for the reference laboratory level of quality control were sent to INVIMA as Colombia's Official Medicine Control Laboratory (OMCL). The test results of the samples taken from public and authorized private establishments indicated that most medicines were of good quality, though several samples were expired. This finding helped diagnose a stock management problem that was subsequently corrected.

The percentage of medicines failing Level 1 and Level 2 testing in endemic areas decreased from 13% in 2007–2008 to 0% in 2009–2010. In part, this reflected a drastic reduction in the number of expired medicines in the latter period, resulting from the corrected stock management problem diagnosed through testing in the 2007–2008 period.

In 2012 and 2013, INVIMA convened meetings of the national network of departmental medicine control laboratories that were also attended by AMI partners USP and PAHO/WHO. At these meetings, the laboratories agreed to use the minilabs to monitor an additional 11 medicines with follow up tasks for doing so, including the need to strengthen INVIMA in order to develop the necessary new methodologies.

Contact:
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Links Media, LLC
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+1 301 987 5495 ext. 109

The three-level approach

The three-level approach applies sequential and complementary levels of quality control of increasing complexity, which are:

Level 1 – Visual and physical inspection

Level 2 – Rapid analytical screening tests that can be performed in the field

Level 3 – Registration methodologies that require an established lab and trained personnel

January 2015
Photo credits: USP/PQM, PAHO/WHO

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INICIATIVA AMAZÓNICA CONTRA LA MALARIA

HISTORIA DE ÉXITO

COLOMBIA ELEVA LAS PRUEBAS HABITUALES DE LOS ANTIMALÁRICOS AL NIVEL SIGUIENTE CON EL FIN DE GARANTIZAR LA CALIDAD EN LAS ZONAS ENDÉMICAS

Colombia tiene la segunda mayor carga de malaria en la región de América Latina y el Caribe. Las poblaciones más afectadas habitan en las regiones del norte y la costa del Pacífico, en las cuales la transmisión se produce principalmente en las áreas rurales. Históricamente, los medicamentos para la malaria obtenidos de los establecimientos públicos y privados en las zonas más remotas de Colombia han sido de calidad variable.

La calidad de los medicamentos es importante para el control de la malaria con el fin de evitar nuevas infecciones parasitarias. Los medicamentos falsificados o de baja calidad pueden tener consecuencias negativas, como el fracaso del tratamiento y la emergencia de resistencia a los antimaláricos. Para solucionar este problema, los socios de la Iniciativa Amazónica contra la Malaria (AMI), OPS/OMS y USP, han defendido con éxito la adopción de las políticas del enfoque de tres niveles para el control de calidad de los medicamentos en Colombia. Este enfoque aplica niveles secuenciales y complementarios de control de calidad, en orden de complejidad. Ofrece una metodología económica, rápida y confiable para evaluar un gran número de medicamentos en pruebas de campo.

En 2006 dos químicos farmacéuticos colombianos asistieron a un seminario de formación de entrenadores en Tumeremo, Venezuela, sobre el uso y la gestión de los GPHF-Minilabs™ (Minilab) como equipos de 2º Nivel para el análisis de campo de los medicamentos en el contexto del enfoque de tres niveles. Un farmacéutico era analista en el Instituto Nacional de Vigilancia de Medicamentos y Alimentos (INVIMA), y el otro era del laboratorio de salud pública del departamento de Antioquia. Colombia recibió en donación dos Minilab a través de la oficina nacional de la OPS/OMS. Los Minilab donados fueron estratégicamente situados en los laboratorios de salud pública regional de Antioquia y Valle del Cauca, de modo que el químico farmacéutico de Antioquia que recibió formación internacional pudo ayudar a entrenar a otro farmacéutico en el Valle del Cauca.

Foto: USP/PQM

Análisis de laboratorio de terapias combinadas basadas en artemisinina (TCAs), Bogotá, Colombia 2013

Con el fin de posibilitar la aplicación de este enfoque en los departamentos de Colombia en los cuales la malaria es endémica se necesitaron equipos y formación adicionales para

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llevar a cabo el 2º Nivel de análisis de campo. En el año 2012, un proyecto nacional del Fondo Mundial de Lucha Contra el SIDA, la Tuberculosis y la Malaria compró tres Minilab destinados a los laboratorios regionales de salud pública, y USP donó otros dos Minilab en respuesta a la solicitud del Instituto Nacional de Vigilancia de Medicamentos y Alimentos (INVIMA). El nuevo Minilab complementó a los otros dos que habían sido adquiridos previamente en el año 2006 y permitió que un total de siete departamentos pertenecientes a la red nacional de laboratorios realizaran pruebas de campo de 2º Nivel. Gracias al apoyo del proyecto del Fondo Mundial, en colaboración con farmacéuticos del departamento de Antioquia, el INVIMA, y la OPS/OMS, cinco farmacéuticos a nivel departamental recibieron capacitación en el uso de los cinco nuevos Minilab.

De conformidad con el protocolo regional normalizado, el muestreo de los medicamentos antimaláricos se inició en las instalaciones de almacenamiento de productos farmacéuticos de las instituciones municipales de salud, así como en centros rurales de diagnóstico y tratamiento en las zonas en las cuales la malaria es endémica. Se realizaron varias rondas de muestreo en los departamentos de Antioquia, Valle del Cauca, Nariño y Chocó con el equipo Minilab existente. Posteriormente, se realizaron otras dos rondas de muestreo en las farmacias privadas, en las cuales la recogida se llevó a cabo mediante una compra simulada. Las muestras para el control de calidad del nivel del laboratorio de referencia fueron enviadas al INVIMA dada su condición de Laboratorio Oficial de Control de Medicamentos (OMCL) de Colombia. Los resultados de las pruebas a las que se sometieron las muestras obtenidas en instituciones públicas y en establecimientos privados autorizados indicaron que la mayoría de los medicamentos era de buena calidad, aunque varias muestras estaban vencidas. Este hallazgo ayudó a diagnosticar un problema de gestión de inventarios que se corrigió posteriormente.

El porcentaje de medicamentos de mala calidad que se detectaron mediante el uso de las pruebas de primer y 2º Nivel en las zonas endémicas disminuyó del 13% entre 2007 y 2008 al 0% entre 2009 y 2010. Entre otros avances, esto reflejó una reducción drástica en el número de medicamentos vencidos en este último bienio, que resultó de la corrección del problema con la gestión de inventarios que se diagnosticó con pruebas durante el periodo de 2007 a 2008.

En 2012 y 2013 el INVIMA organizó reuniones de la red nacional de laboratorios departamentales de control de medicamentos a las cuales también asistieron los socios de la AMI, USP y OPS/OMS. En estas reuniones los directores de los laboratorios acordaron utilizar los Minilab para someter a pruebas once medicamentos adicionales con tareas de seguimiento, incluida la necesidad de fortalecer al INVIMA en el desarrollo de las nuevas metodologías necesarias.

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El enfoque de tres niveles

El enfoque de tres niveles aplica los siguientes niveles secuenciales y complementarios de control de calidad, en orden de complejidad:

1er Nivel – Inspección visual y física

2° Nivel – Examen analítico rápido de detección que se puede realizar en el campo

3er Nivel – Metodologías de registro que requieren un laboratorio establecido y personal entrenado

Enero del 2015
Fotos: USP/PQM, OPS/OMS

Decentralized technical assistance from the Amazon Malaria Initiative improves antimalarial supply management in Loreto, Peru[i]

"We do not view the increase in the number of malaria cases as a problem of supply, because we have available adequate inventories." (SISMED Director, DIRESA-Loreto)

Background

The region of Loreto, in northeastern Peru, is the country's largest. Traversing the region is a vast network of rivers that empty into the Amazon River Basin. Loreto is home to just over 1 million inhabitants,[ii] some 45% of whom reside in rural areas characterized by low population density. Poverty and illiteracy (35% and 6%, respectively, in Loreto)[iii] are greatest among the 19 indigenous ethnic groups who call this region home. A variety of environmental, geographic, and socioeconomic conditions make malaria a prevalent problem here—and one that has proved difficult to control. In 2013, this region accounted for almost 90%[iv] of Peru's total cases. Cases reported in that year showed an increase of 73% over 2012.

To control this epidemic, the Loreto Regional Health Directorate (Dirección Regional de Salud; DIRESA) relies on a network of 374 primary-level health care facilities and three hospitals, all of which provide both individual and group health care. Medicines and other supplies[v] used to control malaria are distributed by the Regional Directorate of Medicines, Supplies and Drugs (Dirección Regional de Medicamentos, Insumos y Drogas; DIREMID) using its Integrated Supply System for Medicines and Medical Supplies (Sistema Integrado de Suministro de Medicamentos e Insumos; SISMED). Antimalarials and other medicines used in public health interventions are procured and distributed nationally by the Directorate for Supply of Strategic Resources (*Dirección de Abastecimiento de Recursos Estratégicos*) pursuant to programming prepared by DIREMID.

Because of the increase in the number of cases, particularly in the region of Loreto, Peru's National Health Strategy for the Control of Vector-Borne Diseases (Estrategia Sanitaria Nacional de Control de Enfermedades Metaxénicas) requested technical assistance from SIAPS[vi] to assess the current status of antimalarial supply and support the implementation of corrective measures.

The baseline study carried out in May 2012 revealed the following: (a) inadequate programming of medicines, with a failure to take into account not only the increase in the number of malaria cases but also antimalarial use by itinerant health brigades for additional interventions seeking out passive cases; (b) delays in medicine purchases resulting from a lack of national providers and regulatory restrictions affecting purchases made on a sole-source basis and all international purchases; (c) poor

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storage conditions and practices affecting medicine quality and inventory management; (d) absence of a standardized distribution procedure, which led to inconsistencies between amounts ordered and amounts dispatched, quantities delivered insufficient to meet demand, increased frequency of emergency orders, and delays in delivery; and (e) low levels of personnel trained in the supply of medicines and medical supplies (particularly in areas located at some distance from the capital city), absence of self-instructional materials, and lack of a training strategy based on staff characteristics and geographic accessibility within the region. All of these problems led to medicine shortages: six of nine antimalarials showed shortages of between 8 and 157 days during the 12-month period prior to the study. Mean availability[vii] in health facilities was 50%.

Interventions

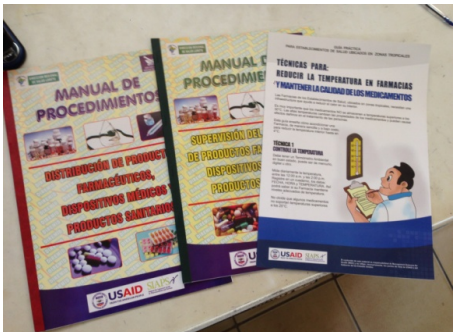
Based on these results, starting in July 2012, SIAPS began providing support to various interventions that led to improvements in regional medicine supply.

1. The implementation of standardized forms and procedures for placing orders and dispensing medicines and medical supplies, maintaining reserve stocks, and periodically monitoring inventories
2. The development and application of new programming and distribution criteria
3. The coordination of donations from Brazil, Ecuador, and Colombia (313,700 units, valued at USD 28,004) to mitigate problems with national procurement
4. The improvement in storage conditions and practices in the regional warehouse[viii] and in subregional warehouses and health facilities
5. Development of graphic self-instructional materials based on malaria technical standards and appropriate medicine distribution procedures

Results

An impact assessment carried out in March 2014[ix] showed a fourfold increase (411%) in the units needed required to be purchased from 2011 to 2013; an increase in availability of distribution procedures in health facilities from 8% to 60%; an increase from 62% to 80% in the number of facilities that received the quantity of medicines they ordered and an increase from 62% to 100% in the number that received supplies on the anticipated date. Emergency orders dropped from 38% to 20%, and the number of facilities with expired products decreased from 33% to 8%.

Although six of the nine antimalarials were affected by stock-outs (of between 8 and 157 days) in the regional warehouse during the 12 months preceding the baseline study (May 2012), only one reflected a stock-out following the intervention, and this was attributable to problems with national procurement. Mean availability of drugs in health facilities increased from 50% to 72%.



Conclusion

Decentralized interventions in Loreto decreased stock-outs from the second half of 2012 through the first quarter of 2014.

Even in geographically remote areas, the management of antimalarial supplies can quickly be improved by means of a systematic

intervention combining the introduction of improved programming criteria, purchases made on a timely basis and in appropriate amounts, optimization of the distribution network, establishment of strategic stock levels, and improvements in training using selctional materials.

See also: Success Story: Certification of the regional medicines warehouse in Loreto (Peru)

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[i] The Amazon Malaria Initiative (AMI) is financed through support from the US Agency for International Development. The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program, an AMI member, supported this decentralized technical assistance initiative.

[ii] Projected population totals 1,028,968, by department, as of June 30, 2014. Instituto Nacional de Estadística e Informática (INEI), *Perú: Estimaciones y Proyecciones de Población por Sexo, según Departamento, Provincia y Distrito, 2000-2015,* Boletín Especial Nº 18 (Lima, Diciembre 2009).

[iii] INEI, Evolución de la pobreza monetaria en el Perú al 2013 (Mayo 2014).

[iv] Ministerio de Salud, Dirección General de Epidemiología, *Boletín Epidemiológico* 52 (2013).

[v] Supplies include slides, lancets, alcohol, and cotton.

[vi] Since 2002, Management Sciences for Health has been an AMI partner, providing technical assistance through its RPM Plus and SPS programs, and now through SIAPS (Systems for Improved Access to Pharmaceuticals and Services).

[vii] Defined as the mean percentage of medicines available in a given health facility, based on the medicines required for the type of malaria frequent in that area (adults, children, pregnant women, and if appropriate for severe malaria) and medicines for adult treatment of the bacterial strain that is not frequent.

[viii] In December 2014, the Loreto regional warehouse received certification in Good Storage Practices from the Ministry of Health's General Directorate for Medicines, Supplies and Drugs.

[ix] Espinoza, Henrry. 2014. S*uministro de medicamentos, insumos y reactivos de laboratorio para el control de la malaria en la DIRESA Loreto, Perú – Evaluación post intervención.* Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

Historia de éxito

Asistencia técnica descentralizada de la Iniciativa Amazónica contra la Malaria mejora la gestión del suministro de medicamentos antimaláricos en Loreto, Perú[i]

Antecedentes

La región Loreto, ubicada en la zona nororiental del Perú, es la más grande del país. Por su territorio discurre una extensa red de ríos que confluyen en la gran cuenca del Amazonas. Alberga una población de un poco más de un millón de habitantes[ii]. El 45% de la población vive en zonas rurales de baja densidad poblacional. La pobreza y el analfabetismo (35% y 6% en la región, respectivamente)[iii] son mayores entre las 19 etnias indígenas que habitan en Loreto. Debido a las condiciones ambientales, geográficas y socioeconómicas, la malaria es un problema prevalente y de difícil control. En 2013 esta región reportó cerca del 90%[iv] de casos del país. Los casos reportados tuvieron un incremento de 73% en relación a 2012.

"El incremento de casos de malaria no se percibe como problema en el suministro, porque contamos con existencias suficientes". (Directora del SISMED, DIRESA Loreto)

Para el control de la epidemia, la Dirección Regional de Salud (DIRESA) de esa región cuenta con una red de 374 establecimientos de salud de primer nivel de atención y tres hospitales, que prestan atención de salud individual y colectiva. Los medicamentos e insumos[v] usados en el control de la malaria son distribuidos por la Dirección Regional de Medicamentos, Insumos y Drogas (DIREMID) mediante el Sistema Integrado de Suministro de Medicamentos e Insumos (SISMED). Los medicamentos antimaláricos (como otros medicamentos usados en intervenciones de salud pública) son adquiridos y distribuidos desde el nivel nacional por la Dirección de Abastecimiento de Recursos Estratégicos de acuerdo a la programación elaborada por la DIREMID.

Debido al incremento de casos, particularmente en la Región de Loreto, la Estrategia Sanitaria Nacional de Control de Enfermedades Metaxénicas solicitó a SIAPS[vi] asistencia técnica para conocer la situación del suministro de antimaláricos y apoyar la introducción de medidas correctivas.

El estudio de base efectuado en mayo de 2012 reveló: (a) una programación insuficiente de medicamentos, que no consideraba el incremento de casos de malaria, ni el consumo de las brigadas itinerantes de salud en intervenciones adicionales a la búsqueda pasiva de casos; (b) retraso en las compras de medicamentos por falta de proveedores nacionales y restricciones normativas para adjudicar compras a proveedor único o ejecutar compras internacionales; (c) deficientes condiciones y prácticas de almacenamiento que afectaban la calidad de los medicamentos y el manejo de inventarios; (d) falta de un procedimiento estandarizado de distribución que tenía

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como consecuencia incongruencia entre pedidos y despachos, cantidades insuficientes para cubrir la demanda, alta frecuencia de pedidos de urgencia y retrasos en la entrega; y (e) baja proporción de personal capacitado en el suministro de medicamentos e insumos (sobre todo en zonas ajeadas a la capital), ausencia de materiales auto-instructivos y falta de una estrategia de capacitación que responda a las características del personal y accesibilidad geográfica de la región. Estos problemas condicionaban desabastecimiento de medicamentos: seis de los nueve medicamentos presentaron desabastecimiento de 8 hasta 157 días en los 12 meses anteriores a la realización del estudio. La mediana de disponibilidad[vii] en los establecimientos de salud fue de 50%.

Intervenciones

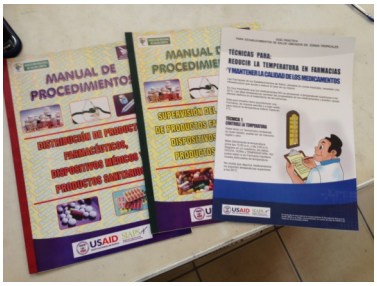
Fundamentado en estos resultados, a partir de julio de 2012, SIAPS apoyó diversas intervenciones que permitieron mejorar el suministro de medicamentos en la región.

1. La implementación de formularios y procedimientos estandarizados para realizar el pedido y despacho, mantener stocks de reserva y monitorear periódicamente las existencias
2. La elaboración y aplicación de nuevos criterios de programación y distribución
3. La coordinación de donaciones de Brasil, Ecuador y Colombia (313,700 unidades, valorizadas en USD 28,004) para mitigar los problemas en la compra nacional
4. La mejora de las condiciones y prácticas de almacenamiento en el almacén regional[viii], almacenes subregionales y establecimientos de salud
5. Desarrollo de materiales auto-instructivos gráficos, basados en la norma técnica de malaria y el procedimiento de distribución de medicamentos

Resultados

Una evaluación de impacto conducida en marzo de 2014[ix] demostró que las unidades requeridas para la compra en el 2013 fueron cuatro veces superiores (411%) a las del 2011; un incremento en la disponibilidad – de un 8% a un 60% – de los procedimientos de distribución en los establecimientos de salud; un aumento del 62% al 80% en el número de establecimientos que recibieron las cantidades de medicamentos que solicitaron y a un aumento del 62% al 100% en el número que los recibieron en la fecha esperada. Los pedidos de urgencia se redujeron de 38% a 20% y el número de establecimientos con productos vencidos de un 33% a un 8%.

Mientras que seis de los nueve medicamentos presentaron episodios de desabastecimiento en el almacén regional (entre 8 hasta 157 días) en los 12 meses antes de la línea de base (mayo de 2012), solo uno estuvo desbastecido luego de la intervención, y esto fue debido a problemas en la compra nacional. La mediana de disponibilidad de medicamentos en establecimientos de salud se incrementó de 50% a 72%.



Conclusión

Las intervenciones descentralizadas en Loreto disminuyeron los episodios de desabastecimiento desde el segundo semestre de 2012 hasta el primer trimestre del 2014.

Aun en zonas de difícil acceso geográfico, la gestión del suministro de antimaláricos puede ser mejorada en

plazos breves mediante una intervención sistemática que combine la introducción de mejores criterios de programación, compras oportunas y en cantidades suficientes, optimización de la red de distribución, establecimiento de stock estratégicos y mejoras en la capacitación utilizando materiales auto-instructivos.

Ver también: Historia de éxito: Certificación del almacén regional de medicamentos en Loreto (Perú)

[i] La Iniciativa Amazónica contra la Malaria (AMI, por sus siglas en inglés), es financiada con recursos de la Agencia de los Estados Unidos para el Desarrollo Internacional. Uno de los socios de AMI, el Proyecto Systems for Improved Access to Pharmaceuticals and Services (SIAPS por sus siglas en inglés), apoyó esta iniciativa de asistencia técnica descentralizada.

[ii] La población proyectada es de 1,028,968 habitantes, según departamento al 30 de junio de 2014. Instituto Nacional DeEstadística e Informática (INEI), *Perú: Estimaciones y Proyecciones de Población por Sexo, según Departamento, Provincia y Distrito, 2000-2015*, Boletín Especial Nº 18 (Lima, Diciembre 2009).

[iii] INEI, Evolución de la pobreza monetaria en el Perú al 2013 (Mayo 2014).

[iv] Ministerio de Salud, Direccion General de Epidemiología, *Boletín Epidemiológico* 52 (2013).

[v] Insumos incluyen láminas, lancetas, alcohol y algodón.

[vi] Desde el 2002 Management Sciences for Health es socio de AMI y ha prestado asistencia técnica mediante sus proyectos RPM Plus, SPS y ahora SIAPS (Systems for Improved Access to Pharmaceuticals and Services Program, o Programa Sistemas para Mejorar el Acceso a Productos y Servicios Farmacéuticos).

[vii] Se defina como la mediana del porcentaje de medicamentos disponibles en los establecimientos de salud, considerando los medicamentos que debe tener para el tipo de malaria frecuente en su zona (adultos, niños, gestantes y si corresponde para malaria grave) y los medicamentos para el tratamiento de adultos de la especie parasitaria que no es frecuente.

[viii] En diciembre de 2014, el almacén regional de Loreto fue certificado en Buenas Prácticas de Almacenamiento por la Dirección General de Medicamentos, Insumos y Drogas del Ministerio de Salud.

[ix] Espinoza, Henrry. 2014. S*uministro de medicamentos, insumos y reactivos de laboratorio para el control de la malaria en la DIRESA Loreto, Perú – Evaluación post intervención.* Presentado a la Agencia de los Estados Unidos para el Desarrollo Internacional por el Programa Systems for Improved Access to Pharmaceuticals and Services (SIAPS). Arlington, VA: Management Sciences for Health.

Success Story

Certification of the regional medicines warehouse in Loreto (Peru)[1]

Staff that achieved certification, led by Dr. Yuri Cabello, director of DIREMID-Loreto, and Chemist-Pharmacist Ivonne Navarro.

Background Information

Loreto, in northeastern Peru, is the country's largest region. Traversing the region is a vast network of rivers that empty into the Amazon River Basin. Loreto is characterized by a low population density with 45% of its slightly more than one million inhabitants residing in rural areas.[2] There are 19 indigenous ethnicities in the region. It has a hot, humid, and rainy climate with high temperatures reaching 98°F from October to January and 84% humidity.

The Loreto Regional Health Directorate (*Dirección Regional de Salud*, DIRESA) relies on a network of 374 primary-level health care facilities and three hospitals. Since 2004, medicines and other supplies for malaria control have been distributed to these facilities by the Regional Directorate of Medicines, Supplies and Drugs (*Dirección Regional de Medicamentos, Insumos y Drogas*, DIREMID) from a space that was originally built as a private home and had been modified to serve as a regional warehouse.

An assessment carried out by USAID-funded SIAPS through the Amazon Malaria Initiative (AMI) in May 2012[3] revealed that the storehouse met only 56% (49/88) of the requirements of the national Good Storage Practices regulations (BPA, by its Spanish acronym).[4] This meant that conditions were still deficient, despite DIREMID's efforts. Some of the main problems included: a) insufficient storage capacity; b) lack of organization within indoor areas; c) absence of standard operating procedures and norms for training, organization, and job descriptions; d) untrained staff; e) non-standard work practices that were unsafe for staff, and f) insufficient and inadequate equipment and materials.

Interventions

In the months following the assessment, SIAPS provided technical assistance to improve the conditions and practices in the regional warehouse, though the implementation of a work plan that required an investment of approximately USD 13,557 of AMI resources.

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[1] Technical assistance provided by Henrry Espinoza, Senior Technical Advisor, and Edgar Barillas, Portfolio Manager.

[2] Peru: The projected population is 1,028,968, according to the region on June 30, 2014. Source: National Institute of Statistics and Informatics (INEI) - Peru: Population Estimates and Projections by Sex, according to Region, Province, and District, 2000 - 2015 - Special Bulletin Nº 18.

[3] Espinoza, Henrry. 2012. Baseline assessment of the supply of medicines, materials, and laboratory reagents for malaria control in DIRESA-Loreto, Peru (*Evaluación del suministro de medicamentos, insumos y reactivos de laboratorio para el control de la malaria en la DIRESA Loreto, Perú – Línea de Base*). Submitted to the United States Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

[4] Ministerial Resolution Nº 585-99-SA/DM approving the Manual of Good Practices for the Storage of Pharmaceutical Products and Related Supplies.

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Before

After

Activities included:

1. Development, validation, and implementation of a standard operating procedures manual, training guidelines, security guidelines, and a manual with organization and job descriptions.

2. Training of staff on warehouse operations through the creation of apprenticeships at a certified warehouse and training on the implementation of procedures and guidelines.

3. Supervision of adherence to the BPA regulations and adoption of corrective measures.

   For its part, DIREMID invested USD 101,028 towards expansion of the storage capacity, improvements to organization within the warehouse, optimization of climate control, and the provision of work equipment and material to facilitate operations and ensure greater safety for people and products. It is important to note that this investment was seven times greater than that provided in technical assistance by USAID/SIAPS.

DECENIO DE LAS PERSONAS CON DISCAPACIDAD EN EL PERU

Nº 528-2014

CERTIFICADO

BUENAS PRÁCTICAS DE ALMACENAMIENTO

La que suscribe, Directora Ejecutiva de la Dirección de Control y Vigilancia Sanitaria de la Dirección General de Medicamentos, Insumos y Drogas.

CERTIFICA:

Que el ALMACEN ESPECIALIZADO – DIREMID, con razón social DIRECCION DE ADMINISTRACION GENERAL DE SALUD, con oficina administrativa y almacén N° 1 ubicados en Calle Faning N° 164 - Iquitos - Maynas - LORETO - PERÚ y almacén N° 2 ubicado en Av. 28 de Julio N° S/N - Punchana – Maynas - LORETO - PERÚ, cumple con las Buenas Prácticas de Almacenamiento para sus: Productos Farmacéuticos: Especialidades Farmacéuticas, Productos Dietéticos, Agentes de Diagnóstico, Productos de Origen Biológico, Productos Galénicos; Productos Cosméticos y de Higiene Personal, Productos Sanitarios y de Higiene Doméstica; Insumos (Reactivos de Diagnóstico), Instrumental y Equipos de Uso Médico - Quirúrgico y Odontológico almacenados a temperatura controlada y temperatura refrigerada, consignadas en la R.M. N° 585-99 SA/DM, para vender o distribuir en el país y/o para la exportación, tal como consta en las Actas de Inspección para Establecimientos que Almacenan y Distribuyen Productos Farmacéuticos y Afines N° 1188-I-2014 de fecha 29 de diciembre del 2014 y N° 1189-I-2014 de fecha 30 de diciembre del 2014.

Se expide el presente Certificado a solicitud del interesado según el Expediente N° 14-101966-1 de fecha 20 de noviembre del 2014 y Expediente N° 14-111671-1 de fecha 22 de diciembre del 2014.

Este Certificado es válido a partir del 30 de diciembre del 2014 hasta el 30 de diciembre del 2017.

Lima, 31 de diciembre del 2014.

Q.F. MARIA IRENE CHEA WOO
Directora Ejecutiva
Dirección de Control y Vigilancia Sanitaria
DIGEMID

www.digemid.minsa.gob.pe

Impact

In December 2014, the General Directorate of Medicines, Supplies and Drugs inspected the regional warehouse in Loreto and gave it a Certificate of Good Storage Practices for complying with 100% of the requirements. Loreto's specialized warehouse is only the second warehouse that has been certified in the whole country.

See also: Success Story: Decentralized technical assistance from the Amazon Malaria Initiative improves antimalarial supply management in Loreto, Peru

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Historia de éxito

Certificación del almacén regional de medicamentos en Loreto (Perú)[1]

Personal que logró la certificación, liderados por el Dr. Yuri Cabello, director de DIREMID, y la QF Ivonne Navarro.

Antecedentes

La región Loreto, ubicada en la zona nororiental del Perú, es la más extensa del país. Por su territorio discurre una red de ríos que confluyen en la gran cuenca del Amazonas. Loreto se caracteriza por una baja densidad poblacional donde el 45% de la población de poco más de un millón de habitantes vive en zonas rurales.[2] Existen 19 etnias indígenas en la región. Su clima cálido, húmedo y lluvioso llega a registrar temperaturas máximas de 36,8°C entre Octubre y Enero y una humedad relativa de 84%.

La Dirección Regional de Salud de Loreto cuenta con una red de 374 establecimientos de salud de primer nivel de atención y tres hospitales, a los que la Dirección Regional de Medicamentos, Insumos y Drogas (DIREMID) distribuye medicamentos y suministros desde un almacén regional, que funciona desde el 2004 en un ambiente construido para fines de vivienda en el que se han efectuado algunas modificaciones.

Una evaluación realizada por SIAPS, en el marco de la Iniciativa Amazónica de Malaria (AMI), financiada por USAID, en Mayo de 2012[3] reveló que el almacén regional cumplía con solo el 56% (49/88) de las exigencias de las Buenas Prácticas de Almacenamiento (BPA).[4] Esto significaba que persistían deficiencias en las condiciones de almacenamiento pese a los esfuerzos de la DIREMID. Entre las deficiencias encontradas destacaban: a) insuficiente capacidad de almacenamiento; b) falta de organización de áreas internas; c) ausencia de procedimiento operativos y normas de capacitación, organización y funciones; d) personal no entrenado; e) prácticas de trabajo no estandarizadas e inseguras para el personal, y f) insuficiente e inadecuado equipamiento y materiales.

Intervenciones

En los meses posteriores a la evaluación, SIAPS prestó asistencia técnica para mejorar las condiciones y prácticas en el almacén regional, mediante la ejecución de un plan de trabajo que demandó una inversión aproximada de USD 13,557 de recursos de la AMI.

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[1] Asistencia técnica prestada por Henrry Espinoza, Senior Technical Advisor, y Edgar Barillas, Portfolio Manager.

[2] Perú: La población proyectada es de 1,028,968 habitantes, según departamento al 30 de Junio de 2014. Fuente: INEI - Perú: Estimaciones y Proyecciones de Población por Sexo, Según Departamento, Provincia y Distrito, 2000 - 2015 - Boletín Especial Nº 18.

[3] Espinoza, Henrry. 2012. *Evaluación del suministro de medicamentos, insumos y reactivos de laboratorio para el control de la malaria en la DIRESA Loreto, Perú – Línea de Base.* Presentado a la Agencia de los Estados Unidos para el Desarrollo Internacional por el Programa Systems for Improved Access to Pharmaceuticals and Services (SIAPS). Arlington, VA: Management Sciences for Health.

[4] Resolución Ministerial Nº 585-99-SA/DM aprueba Manual de Buenas Prácticas de Almacenamiento de Productos Farmacéuticos y Afines.

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SIAPS
Systems for Improved Access to Pharmaceuticals and Services

Antes

Después

Las actividades incluyeron:

1. El desarrollo, validación e implementación de un manual de procedimientos operativos, normas de capacitación, normas de seguridad y manual de organización y funciones.

2. El adiestramiento al personal en las operaciones del almacén mediante el desarrollo de pasantías en un almacén certificado y capacitación para la implementación de los procedimientos y normas.

3. Supervisión de la adherencia a las BPA y adopción de medidas correctivas.

Por su parte, la DIREMID invirtió de USD 101,028 en: La ampliación de la capacidad de almacenamiento, la mejora de la organización interna, la optimización de la climatización y la dotación de equipos y materiales de trabajo que faciliten las operaciones y brinden mayor seguridad a las personas y los productos. Cabe resaltar que esta inversión fue siete veces mayor que el valor de la asistencia técnica proporcionada por USAID/SIAPS.

PERÚ Ministerio de Salud

DECENIO DE LAS PERSONAS CON DISCAPACIDAD EN EL PERU

Nº 528-2014

CERTIFICADO

BUENAS PRÁCTICAS DE ALMACENAMIENTO

La que suscribe, Directora Ejecutiva de la Dirección de Control y Vigilancia Sanitaria de la Dirección General de Medicamentos, Insumos y Drogas.

CERTIFICA:

Que el ALMACEN ESPECIALIZADO – DIREMID, con razón social DIRECCION DE ADMINISTRACION GENERAL DE SALUD, con oficina administrativa y almacén N° 1 ubicados en Calle Faning N° 164 - Iquitos - Maynas - LORETO - PERÚ y almacén N° 2 ubicado en Av. 28 de Julio N° S/N - Punchana – Maynas - LORETO - PERÚ, cumple con las Buenas Prácticas de Almacenamiento para sus Productos Farmacéuticos: Especialidades Farmacéuticas, Productos Dietéticos, Agentes de Diagnóstico, Productos de Origen Biológico, Productos Galénicos; Productos Cosméticos y de Higiene Personal, Productos Sanitarios y de Higiene Doméstica; Insumos (Reactivos de Diagnóstico), Instrumental y Equipos de Uso Médico - Quirúrgico y Odontológico almacenados a temperatura controlada y temperatura refrigerada, consignadas en la R.M. N° 585-99 SA/DM, para vender o distribuir en el país y/o para la exportación, tal como consta en las Actas de Inspección para Establecimientos que Almacenan y Distribuyen Productos Farmacéuticos y Afines N° 1188-I-2014 de fecha 29 de diciembre del 2014 y N° 1189-I-2014 de fecha 30 de diciembre del 2014.

Se expide el presente Certificado a solicitud del interesado según el Expediente N° 14-101968-1 de fecha 20 de noviembre del 2014 y Expediente N° 14-111671-1 de fecha 22 de diciembre del 2014.

Este Certificado es válido a partir del 30 de diciembre del 2014 hasta el 30 de diciembre del 2017.

Lima, 31 de diciembre del 2014.

Q.F. MARIA IRENE CHEA WOO
Directora Ejecutiva
Dirección de Control y Vigilancia Sanitaria
DIGEMID

www.digemid.minsa.gob.pe

Resultado

En Diciembre de 2014 la Dirección General de Medicamentos, Insumos y Drogas inspeccionó el almacén regional de Loreto y le otorgó la Certificación en Buenas Prácticas de Almacenamiento por cumplir con el 100% de las exigencias. Este almacén especializado es apenas el segundo que es certificado en todo el país.

Ver también: Historia de éxito: Asistencia técnica descentralizada de la Iniciativa Amazónica contra la Malaria mejora la gestión del suministro de medicamentos antimaláricos en Loreto, Perú

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FACT SHEET 2015-01

AMAZON MALARIA INITIATIVE

Antimalarial Drug Resistance

February 2015

Background

Countries in the region of the Americas rely on prompt and effective treatment as the primary means for reducing malaria morbidity and mortality. In the Amazon basin, the emergence and spread of *Plasmodium falciparum* parasites resistant to first-line antimalarial medicines such as chloroquine prompted national malaria programs to turn to artemisinin-based combination therapy (ACT, composed of an artemisinin derivative and a partner drug). The reduction of efficacy of antimalarial drugs currently in use poses a serious threat to gains made in malaria control in the Americas, and may result in higher costs to health systems.

FIGURE 1. Current first line treatment for uncomplicated *P. falciparum* malaria, by country.

Current Status of Antimalarial Resistance in the Americas

Eight Amazon basin countries use ACTs, while Central American countries use chloroquine as the first-line treatment for *P. falciparum* malaria. In 2012, Guyana and Suriname reported a suspected decline in artemisinin sensitivity for the first time in the region, based on *in vivo* study results indicating that >10% of patients still had parasites in the blood on day 3 after initiating treatment with the ACT artemether-lumefantrine. In 2014, both countries completed studies assessing how artesunate cleared parasites from patients' blood, finding no evidence of artemisinin resistance as currently defined. Testing of *P. falciparum* samples from both countries for genetic mutations in the K13-propeller gene associated with resistance to artemisinin yielded negative results.

Currently, ACTs continue to be efficacious for treating *P. falciparum* malaria in the Amazon sub-region. Nevertheless, artemisinin efficacy has declined slightly in Suriname since 2004, and the Amazon sub-region faces a significant threat of emergence of resistance to artemisinin and its partner drugs because of their inappropriate use, particularly among hard-to-reach and mobile populations associated with gold mining in Guiana Shield countries.

(Continued)

Pan American Health Organization
World Health Organization Regional Office for the Americas
CDC Safer·Healthier·People
SIAPS Systems for Improved Access to Pharmaceuticals and Services
USAID From the American People USP Promoting the Quality of Medicines

How does the Amazon Malaria Initiative (AMI) Contribute to the Early Detection and Containment of Antimalarial Drug Resistance in the Americas?

- Through AMI, the United States Agency for International Development (USAID) and Pan American Health Organization (PAHO)/World Health Organization (WHO) have helped to establish and strengthen the Amazon Network for Antimalarial Drug Resistance Surveillance or RAVREDA (acronym in Spanish), a regional network of national malaria control programs that conduct antimalarial drug efficacy surveillance and other activities to address malaria.

- Initially, AMI and RAVREDA supported countries in the Amazon basin and Central America sub-regions to adopt standardized protocols to assess first-line treatments and to evaluate alternative treatments for malaria according to efficacy study results. Now, countries receive technical assistance to conduct routine monitoring of the therapeutic efficacy of ACTs. This includes assessment of the proportion of patients who have parasites in the blood on day 3 after initiating treatment (the indicator of choice for routine monitoring to identify suspected artemisinin resistance in *P. falciparum*), along with the proportion of treatment failures after 28 or 42 days depending on the ACT.

- Technical assistance is provided in some countries to monitor resistance to antimalarials using *in vitro* tests or molecular markers when available.

- AMI offers technical guidance and training in the areas of pharmaceutical supply management and drug quality, helping to ensure access to timely diagnosis and treatment with good quality drugs.

- AMI provides countries with access to reliable information on the geographic distribution of resistant strains of malaria, reduced therapeutic efficacy of antimalarial drugs, and state-of-the-art guidance for malaria control according to global guidelines and strategies.

Amazon Malaria Initiative's Main Lines of Work

- Antimalarial efficacy monitoring, resistance surveillance, and prevention of emergence of resistance to antimalarials
- Access to quality diagnosis and treatment
- Quality assurance and control of pharmaceuticals and other supplies for malaria
- Vector surveillance and integrated vector management
- Epidemiological surveillance
- Networking and systems strengthening

Resources

- Amazon Malaria Initiative (AMI)
  http://www.usaidami.org/

- Amazon Network for Antimalarial Drug Resistance Surveillance (RAVREDA)
  http://www.paho.org/hq/index.php?option=com_content&view=category&layout=blog&id=1988&Itemid=2150&lang=en

- Global Plan for Artemisinin Resistance Containment (GPARC), WHO January 2011
  http://www.who.int/malaria/publications/atoz/9789241500838/en/

- Malaria Policy Advisory Committee to the WHO: conclusions and recommendations of March 2013 meeting, *Malaria Journal* 2013, 12:213
  http://www.malariajournal.com/content/12/1/213

- Were medicine quality and pharmaceutical management contributing factors in diminishing artemisinin efficacy in Guyana and Suriname? *Malaria Journal* 2014, 13:77
  http://www.malariajournal.com/content/13/1/77

- Status Report on artemisinin resistance – September 2014, WHO
  http://www.who.int/malaria/publications/atoz/status-rep-artemisinin-resistance-sep2014.pdf?ua=1

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INFORMATIVO AMI 2015-01

INICIATIVA AMAZÔNICA CONTRA A MALÁRIA

Resistência a medicamentos antimaláricos

Fevereiro de 2015

Antecedentes

Os países das Américas contam com tratamento rápido e eficaz como o principal meio para a redução da morbidade e mortalidade por malária. Na Bacia Amazônica, o surgimento e a propagação de parasitas *Plasmodium falciparum* resistentes a medicamentos antimaláricos como a cloroquina levaram os programas nacionais contra a malária a recorrer às terapias combinadas baseadas na artemisinina (TCA, composto de derivado de artemisinina e outro medicamento associado). A redução da eficácia dos antimaláricos atualmente em uso na região representa uma séria ameaça para os avanços obtidos no controle da malária nas Américas e pode acarretar custos adicionais para os sistemas de saúde.

FIGURA 1. Tratamento atual de primeira linha para malária não-complicada por *P. falciparum*, por país.

Situação atual da resistência aos antimaláricos nas Américas

Oito países da Bacia Amazônica usam TCAs, ao passo que os países da região da América Central usam a cloroquina como tratamento de primeira linha para a malária causada pelo *P. falciparum*. Em 2012, a Guiana e o Suriname relataram pela primeira vez na região a suspeita da diminuição da sensibilidade à artemisinina com base nos resultados de estudos *in vivo* que indicaram que >10% dos pacientes ainda tinham a presença de parasitas na corrente sanguínea no 3° dia após o início do tratamento com o TCA arteméter-lumefantrina. Em 2014, os dois países concluíram estudos confirmatórios analisando como o artesunato elimina os parasitas da corrente sanguínea de pacientes, não tendo sido encontrada evidência da resistência à artemisinina, conforme definições atuais. Também não foram encontradas mutações genéticas no gene K13 associadas à resistência à artemisinina em amostras de *P. falciparum* desses dois países.

Atualmente, os TCAs continuam a ser eficazes no tratamento da malária causada por *P. falciparum* na região amazônica. No entanto, a eficácia da artemisinina vem diminuindo levemente no Suriname desde 2004, e a região amazônica enfrenta uma ameaça significativa do surgimento da resistência à artemisinina e medicamentos associados em decorrência do uso inadequado dos mesmos, especialmente em populações de alta mobilidade e em áreas de difícil acesso associadas à mineração de ouro nas Guianas.

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Como a Iniciativa Amazônica contra a Malária (AMI, sigla em inglês) contribui para a detecção e contenção oportunas da resistência a medicamentos antimaláricos nas Américas?

- Por meio da AMI, a Agência dos Estados Unidos para o Desenvolvimento Internacional (USAID) e a Organização Pan Americana da Saúde (OPAS/OMS) ajudaram a criar e fortalecer a Rede Amazônica de Vigilância da Resistência aos Antimaláricos ou RAVREDA (na sigla em espanhol), que é uma rede regional de programas nacionais de controle da malária que realiza a vigilância da eficácia dos medicamentos antimaláricos e outras atividades voltadas para a malária.

- Inicialmente, a AMI e a RAVREDA prestavam apoio aos países da Bacia Amazônica e da América Central na adoção de protocolos padronizados para analisar os tratamentos de primeira linha, bem como avaliar tratamentos alternativos para a malária segundo os resultados de estudos de eficácia. Hoje, os países recebem assistência técnica para realizar monitoramento de rotina da eficácia terapêutica dos TCAs, que inclui a análise da proporção de pacientes com a presença de parasitas na corrente sanguínea no 3° dia após o início do tratamento (indicador de preferência no monitoramento de rotina para identificar resistência à artemisinina em *P. falciparum*), bem como a proporção de falhas terapêuticas após 28 ou 42 dias, dependendo do TCA.

- Presta-se assistência técnica em alguns países para o monitoramento da resistência dos parasitas aos antimaláricos utilizando testes *in vitro* ou marcadores moleculares, quando disponíveis.

- A AMI oferece orientação e capacitação técnica na área de gestão dos suprimentos farmacêuticos e controle de qualidade dos medicamentos, ajudando a garantir o acesso ao diagnóstico oportuno e ao tratamento com medicamentos de qualidade.

- A AMI proporciona aos países acesso a informações confiáveis sobre a distribuição geográfica de cepas resistentes de malária, redução da eficácia dos antimaláricos e as últimas diretrizes para o controle da malária segundo orientações e estratégias globais.

Principais linhas de trabalho da Iniciativa Amazônica contra a Malária

- Monitoramento da eficácia dos antimaláricos, vigilância da resistência dos parasitas aos antimaláricos e prevenção do surgimento da resistência
- Acesso a diagnóstico e tratamento de qualidade
- Garantia e controle de qualidade de medicamentos e outros suprimentos farmacêuticos para malária
- Vigilância e gestão integrada de vetores
- Vigilância epidemiológica
- Criação de redes e fortalecimento de sistemas

Recursos

- Iniciativa Amazônica contra a Malária (Amazon Malaria Initiative, AMI)
  http://www.usaidami.org/

- Rede Amazônica de Vigilância da Resistência aos Antimaláricos (Amazon Network for Antimalarial Drug Resistance Surveillance, RAVREDA)
  http://www.paho.org/hq/index.php?option=com_content&view=category&layout=blog&id=1988&Itemid=2150&lang=en

- Plano Global para a Contenção da Resistência à Artemisinina (Global Plan for Artemisinin Resistance Containment, GPARC), OMS, janeiro de 2011
  http://www.who.int/malaria/publications/atoz/9789241500838/en/

- Comitê Consultivo para a Política de Malária à OMS: conclusões e recomendações da reunião de março de 2013, *Malaria Journal* 2013, 12:213
  http://www.malariajournal.com/content/12/1/213

- A qualidade de medicamentos e gestão farmacêutica foram fatores que contribuiram à diminuição da eficácia da artemisinina na Guiana e no Suriname? *Malaria Journal* 2014, 13:77
  http://www.malariajournal.com/content/13/1/77

- Relatório sobre o status da resistência à artemisinina, setembro de 2014, OMS
  http://www.who.int/malaria/publications/atoz/status-rep-artemisinin-resistance-sep2014.pdf?ua=1

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HOJA INFORMATIVA 2015-01

INICIATIVA AMAZÓNICA CONTRA LA MALARIA

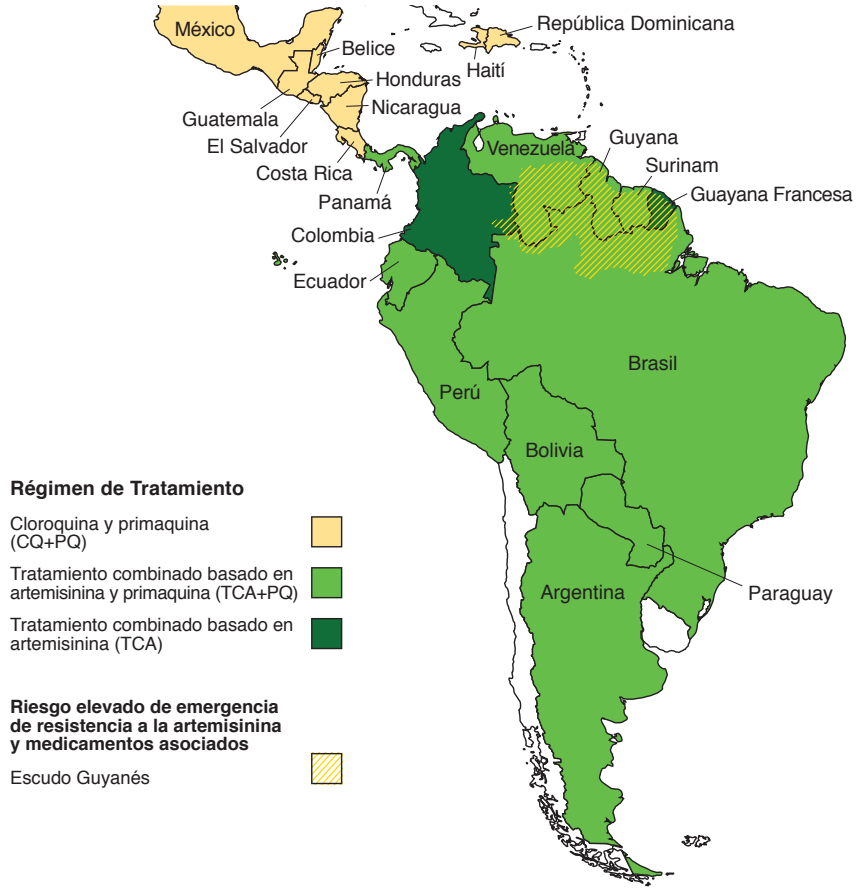
Resistencia a los medicamentos antimaláricos

Febrero de 2015

Antecedentes

Los países de la región de las Américas confían en el tratamiento oportuno y eficaz como el principal medio para reducir la morbimortalidad de la malaria. En la cuenca del Amazonas, la aparición y diseminación de parásitos de *Plasmodium falciparum* resistentes a los medicamentos antimaláricos de primera línea como la cloroquina, impulsaron programas nacionales contra la malaria para recurrir al tratamiento combinado basado en la artemisinina (TCA) (compuesto por un derivado de la artemisinina y un medicamento asociado). La reducción de la eficacia de los medicamentos antimaláricos que se usan actualmente representa una seria amenaza para los logros obtenidos en el control de la malaria en las Américas y podría traducirse en costos más altos para los sistemas de salud.

FIGURA 1. Tratamiento actual de primera línea para la malaria *P. falciparum*, por país.



Estado actual de la resistencia a los antimaláricos en las Américas

Los ocho países de la cuenca del Amazonas usan los TCA, mientras que los países de Centroamérica usan cloroquina como el tratamiento de primera línea para la malaria por *P. falciparum*. En 2012, Guyana y Surinam reportaron, por primera vez en la región, una supuesta disminución en la sensibilidad a la artemisinina, con base en los resultados del estudio *in vivo* que indicaron que > 10% de los pacientes todavía tenía parásitos en la sangre al 3er día de haber iniciado el TCA arteméter–lumefantrina. En 2014, ambos países terminaron estudios confirmatorios que evaluaban cómo el artesunato eliminó los parásitos de la sangre de los pacientes, sin encontrar pruebas de resistencia a la artemisinina conforme a las definiciones actuales. Asimismo, el análisis de las muestras de *P. falciparum* de ambos países para las mutaciones en el gen propulsor K13 relacionadas con la resistencia a la artemisinina arrojó resultados negativos.

Actualmente, los TCA siguen siendo eficaces para el tratamiento de la malaria por *P. falciparum* en la región amazónica. Sin embargo, la eficacia de la artemisinina ha disminuido ligeramente en Surinam desde 2004, y la región amazónica se enfrenta a una amenaza importante por el surgimiento de la resistencia a la artemisinina y los medicamentos asociados debido a su uso inadecuado, sobre todo entre las poblaciones de difícil acceso y móviles asociadas con la explotación de oro en los países del Escudo Guyanés.

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¿Cómo contribuye la Iniciativa Amazónica contra la Malaria (AMI) a la detección temprana y la contención de la resistencia a los medicamentos antimaláricos en las Américas?

- A través de AMI, la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) y la Organización Panamericana de la Salud (OPS/OMS) han ayudado a establecer y fortalecer la Red Amazónica de Vigilancia de la Resistencia a los Antimaláricos (RAVREDA), que es una red regional de programas nacionales contra la malaria que lleva a cabo actividades de vigilancia de la eficacia de los medicamentos antimaláricos y otro tipo de actividades para controlar la malaria.

- Inicialmente, AMI y RAVREDA apoyaban a los países en la cuenca del Amazonas y Centroamérica para que adoptaran normas estandarizadas para evaluar los tratamientos de primera línea y los tratamientos alternativos para la malaria de acuerdo con los resultados del estudio de eficacia. Ahora, los países reciben asistencia técnica para llevar a cabo un monitoreo de rutina de la eficacia terapéutica de los tratamientos combinados basados en artemisinina. Esto incluye la evaluación del porcentaje de pacientes que tienen parásitos en la sangre al 3er día de haber iniciado el tratamiento (el indicador elegido en el monitoreo de rutina para identificar la resistencia sospechosa a la artemisinina por *P. falciparum*), junto con el porcentaje de fracaso terapéutico después de 28 o 42 días dependiendo del TCA.

- En algunos países se ofrece asistencia técnica para monitorear la resistencia a los antimaláricos usando pruebas *in vitro* o marcadores moleculares cuando están disponibles.

- AMI ofrece orientación y capacitación técnica en las áreas de manejo de suministros farmacéuticos y control de calidad, para ayudar a asegurar el acceso oportuno al diagnóstico y tratamiento con medicamentos de buena calidad.

- AMI proporciona a los países acceso a información confiable sobre la distribución geográfica de cepas resistentes de malaria, la eficacia terapéutica reducida de los antimaláricos y lo último en normas para el control de la malaria de acuerdo con las directrices y estrategias mundiales.

Principales líneas de trabajo de la Iniciativa Amazónica contra la Malaria

- Monitoreo de la eficacia y vigilancia de la resistencia a los antimaláricos, y prevención del surgimiento de resistencia a los antimaláricos
- Acceso al diagnostico y tratamiento de calidad
- Garantía de la calidad y control de farmacéuticos y otros suministros para la malaria
- Vigilancia y manejo integrado de vectores
- Vigilancia epidemiológica
- Red de trabajo y fortalecimiento de sistemas

Recursos

- Iniciativa Amazónica contra la Malaria (Amazon Malaria Initiative, AMI)
  http://www.usaidami.org/

- Red Amazónica de Vigilancia de la Resistencia Antimalárica (Amazon Network for Antimalarial Drug Resistance Surveillance, RAVREDA)
  http://www.paho.org/hq/index.php?option=com_content&view=category&layout=blog&id=1988&Itemid=2150&lang=en

- Plan Mundial para la Contención de la Resistencia a la Artemisinina (Global Plan for Artemisinin Resistance Containment, GPARC), OMS, Enero de 2011
  http://www.who.int/malaria/publications/atoz/9789241500838/en/

- Comité asesor en políticas contra la malaria ante la OMS: conclusiones y recomendaciones de la reunión de marzo de 2013, *Malaria Journal* 2013, 12:213
  http://www.malariajournal.com/content/12/1/213

- ¿Fueron la calidad de los medicamentos y el manejo farmacéutico factores contribuyentes en la disminución de la eficacia de la artemisinina en Guyana y Surinam? *Malaria Journal* 2014, 13:77
  http://www.malariajournal.com/content/13/1/77

- Informe del estado de la resistencia a la artemisinina. Septiembre 2014, OMS
  http://www.who.int/malaria/publications/atoz/status-rep-artemisinin-resistance-sep2014.pdf?ua=1

2015-03
October 2015

Malaria Elimination
Frequently Asked Questions (FAQs)

What is malaria elimination?

The World Health Organization (WHO) defines malaria elimination as the interruption of local mosquito-borne malaria transmission in a defined geographical area, usually a country, as a result of deliberate efforts. Malaria elimination is a continuous process that requires national and community commitment to sustain efforts beyond the achievement of zero cases, in order to prevent the reintroduction of the disease.

How is malaria elimination different from malaria eradication?

Elimination refers to the interruption of local malaria transmission in a defined geographical area.[1] Malaria eradication is when malaria has successfully been permanently eliminated on a *global* level, in other words, once all countries have eliminated the disease.

How is malaria elimination different from malaria control?

Malaria control is on the continuum towards a malaria-free status. In the short term, the goal of malaria control is to reduce the disease burden to manageable levels of morbidity and mortality. A country-level malaria control program may have national elimination as its ultimate goal. Elimination seeks to reduce local transmission of the disease to zero cases. Committing to elimination requires a specific set of programmatic interventions, which should be based on the WHO guidelines as well as scientific evidence about what works in the local context.

When does a country receive malaria elimination certification?

A country may request WHO (in the Region of the Americas, through PAHO) to begin the process to certify malaria elimination after local malaria transmission has been interrupted for at least three consecutive years. It is at this point that the WHO may grant certification, when the country can prove beyond reasonable doubt to an independent certification team designated by WHO that it has met the evaluation prerequisites.

What are some of the WHO prerequisites[2] that my country must achieve for malaria elimination?

- A good surveillance mechanism with full coverage of all geographical areas;
- Quality-assured laboratory services to diagnose malaria;

[1] See WHO: [http://www.who.int/malaria/areas/elimination/overview/en/].
[2] See WHO: [http://www.who.int/wer/2014/wer8929.pdf]

- Notification and full immediate reporting by public and private health services, with epidemiological investigation of every malaria infection (case) and focus;
- Vigilant health services for detection, treatment and follow-up of all possible malaria cases, supported by continued education on malaria for health workers;
- Services to raise awareness and provide practical advice on malaria prevention for nationals traveling abroad;
- Entomological surveillance in receptive areas;
- Systems for early detection of and rapid response to outbreaks;
- Inter-country information-sharing and coordination mechanisms for malaria control and elimination, wherever relevant due to migration patterns or adjacent malarious areas;
- A comprehensive national plan of action with continued political and financial support to carry out activities needed to prevent reestablishment of transmission.

What are some of the challenges to malaria elimination?

Countries in Latin America and the Caribbean have had a long history of attempting to eliminate malaria. Some countries have successfully eliminated the disease, while others continue their efforts in combating it. Ensuring political commitment to provide sustainable resources is once again a challenge, the lack of which could result in reduced or incomplete efforts. Other challenges include parasites that may become less sensitive or resistant to certain antimalarial medicines and/or vectors (mosquitoes) that may become less sensitive or resistant to vector control measures. For this reason, efforts to combat malaria must continue to monitor resistance and provide adaptive measures to reduce malaria morbidity and mortality.

Will malaria elimination benefit other health issues?

By meeting the WHO prerequisites (see above), a country may be able to strengthen its capacity to address other health issues, including other vector-borne diseases such as dengue and chikungunya.

Is it possible that a country may have cases of malaria after elimination has been certified?

Yes, there is a possibility for imported malaria cases when travelers carrying the parasite arrive from other countries where they acquired the infection. This may cause reintroduction of the disease. For this reason it is important that countries have strong surveillance systems to test, treat, and track all new cases in order to prevent the disease from being reestablished within a malaria-free area.

Is malaria elimination only a health issue? What other sectors should be involved?

Though malaria elimination is led by the health sector, malaria elimination may have positive consequences for other sectors including agriculture, commerce, tourism, and education.

Therefore, these sectors should be actively involved in working to eliminate the disease to help identify resources and committing to support efforts beyond zero cases.

With all the other issues in my community, why should I make malaria elimination a priority and commit resources to this effort?

Malaria has a high social cost, as it is linked to reduced educational achievement, prolonged disability, economic difficulties due to lost productivity, and unnecessary loss of life. However, these costs are avoidable. Investing in malaria control and elimination now can help communities to overcome multiple development issues. In the long run, the cost of inaction may be equal to or higher than the additional resources needed to intensify efforts and eliminate the disease.

Have other diseases been eliminated in Latin America and the Caribbean? If so, which ones?

Yes, rubella, polio, and smallpox have been eliminated in Latin America and the Caribbean. Smallpox remains the only disease to date to have been eradicated, meaning it has been eliminated worldwide. Ongoing efforts exist in the region to eliminate other preventable diseases such as river blindness, tuberculosis; and mother-to-child transmission of HIV and syphilis, which has so far been achieved only in Cuba.

Where can I find more information?

You can learn more about malaria elimination from the Ministry of Health in your country, the Pan American Health Organization (PAHO/WHO),[3] the Malaria Eradication Scientific Alliance (MESA),[4] and from regional initiatives including the USAID-funded Amazon Malaria Initiative (AMI),[5] the Elimination of Malaria in Mesoamerica and the Island of Hispaniola (EMMIE) Initiative, and the Malaria Zero Initiative.

[3] [http://www.paho.org]
[4] [http://www.malariaeradication.org]
[5] [http://www.usaidami.org]

2015-03
octubre de 2015

Eliminación de la Malaria
Preguntas Frecuentes

¿Qué es la eliminación de la malaria?

La Organización Mundial de la Salud (OMS) define la eliminación de la malaria como la interrupción de la transmisión local por los mosquitos en una zona geográfica determinada, que por lo general es un país, como resultado de esfuerzos deliberados. La eliminación de la malaria es un proceso continuo que requiere el compromiso a nivel nacional y comunitario para sostener los esfuerzos, más allá de poder lograr cero casos, para evitar el restablecimiento de la enfermedad.

¿Cuál es la diferencia entre la eliminación y la erradicación de la malaria?

La eliminación se refiere a la interrupción local de la transmisión de la malaria en una zona geográfica definida.[1] La erradicación de la malaria se refiere a la interrupción permanente de la transmisión a nivel mundial, es decir, una vez que todos los países eliminaron la enfermedad.

¿Cuál es la diferencia entre la eliminación y el control de la malaria?

El control de la malaria se ubica en el continuo hacia un estado libre de la malaria. A corto plazo, el objetivo del control de la malaria es reducir la carga de enfermedad a niveles manejables de morbilidad y mortalidad. Un programa nacional de control de la malaria puede tener como su objetivo final la eliminación a nivel nacional de la enfermedad. La eliminación busca reducir la transmisión local de la enfermedad a cero casos. Comprometerse a la eliminación requiere una serie de intervenciones programáticas específicas, que se deben asentar en las directrices de la OMS, así como en las evidencias científicas de lo que funciona en el contexto local.

¿Cuándo es que un país recibe certificación por haber eliminado la malaria?

El país puede solicitar a la OMS (en la región de las Américas, a través de la OPS) a iniciar el proceso de certificar la eliminación de la malaria una vez que la transmisión local de la malaria esté interrumpida durante por lo menos tres años consecutivos. Es en ese momento que la OMS puede conceder la certificación si el país puede demostrar más allá de cualquier duda razonable que ha cumplido con los prerrequisitos correspondientes ante un equipo independiente de certificación designado por la OMS.

¿Cuáles son algunos de los prerrequisitos[2] de la OMS que el país debe alcanzar para la eliminación de la malaria?

[1] Véase la página de la OMS: [http://www.who.int/malaria/areas/elimination/overview/es/].

- Un buen mecanismo de vigilancia con cobertura plena de todas las zonas geográficas;
- Servicios de laboratorio de calidad garantizada para diagnosticar la malaria;
- Notificación e informe completo e inmediato, con una investigación epidemiológica, de toda infección (caso) y foco malárico por parte de los servicios de salud públicos y ;
- Servicios de salud que se mantienen siempre atentos para la detección, tratamiento y seguimiento de todos los casos posibles de malaria, apoyados por la educación continua sobre la malaria para los trabajadores de la salud;
- Servicios para generar conciencia y proporcionar consejos prácticos sobre la prevención de la malaria para nacionales que viajan al extranjero;
- Vigilancia entomológica en zonas receptivas;
- Sistemas de detección temprana y respuesta rápida a brotes;
- Intercambio de información entre países y mecanismos de coordinación para el control y la eliminación de la malaria, donde sea pertinente debido a patrones de migración o zonas adyacentes con malaria;
- Un plan integral de acción nacional con apoyo financiero y político constante para realizar las actividades necesarias para prevenir el restablecimiento de la transmisión.

¿Cuáles son algunos de los retos para la eliminación de la malaria?

Los países de América Latina y el Caribe tienen una larga historia de lucha contra la malaria. Algunos de ellos lograron eliminar la enfermedad, mientras que otros prosiguen su lucha contra la malaria. Asegurar el compromiso político en la provisión de recursos sostenibles, cuya falta resultó en esfuerzos reducidos o incompletos, es de nuevo un reto. Otros incluyen parásitos que pueden volverse resistentes o menos sensibles a ciertos medicamentos antimaláricos y/o vectores (mosquitos) que pueden volverse menos sensibles o resistentes a determinadas medidas de control. Por esta razón, se debe continuar a monitorear la resistencia y proporcionar medidas adaptivas para reducir la morbilidad y mortalidad por malaria.

¿Podría la eliminación de la malaria beneficiar a otros problemas de salud?

Por cumplir con los prerrequisitos de la OMS (ver más arriba), es posible que el esfuerzo para eliminar la malaria también ayude en los esfuerzos para combatir otras enfermedades, especialmente las enfermedades transmitidas por vectores como el dengue y la chikunguña.

¿Es posible que un país tenga casos de malaria después de recibir la certificación de eliminación?

Sí, existe la posibilidad de tener casos de malaria importados cuando llegan viajeros trayendo la enfermedad que han adquirido en otro país y esto pueden ocasionar la reintroducción de la enfermedad. Por esta razón, es importante que los países tengan sistemas de vigilancia

[2] Vea OMS: [http://www.who.int/wer/2014/wer8929.pdf]

fortalecidos para poder diagnosticar, tratar y monitorear todos los nuevos casos para así impedir el restablecimiento de la enfermedad en zonas libres de malaria.

¿La eliminación de la malaria es un problema solo para la salud? Qué otros sectores deben participar?

Aunque la eliminación de la malaria es dirigida por el sector de salud, la eliminación de la malaria tendrá implicaciones positivas para otros sectores, como para la agricultura, el turismo y la educación. Por ende, estos sectores deben participar activamente en los esfuerzos de eliminación, para ayudar a identificar recursos y comprometerse a apoyar esfuerzos para avanzar más allá de cero casos.

¿Con tantos problemas en la comunidad, por qué la eliminación de la malaria y la consigna de recursos es prioritaria?

El costo social y económico de la malaria es elevado, al estar ligado a la reducción de rendimiento escolar; la incapacidad prolongada; la baja productividad; y la pérdida innecesaria de vidas. Estos costos son evitables y la inversión inmediata en el control y la eliminación de la malaria puede contribuir a superar varios problemas de desarrollo. A largo plazo, el costo de la inacción puede ser mayor o igual que los recursos adicionales necesarios para intensificar los esfuerzos y eliminar la enfermedad.

¿Se han eliminado otras enfermedades en América Latina y el Caribe? ¿En caso afirmativo, cuáles?

La rubéola, poliomielitis y viruela han sido eliminadas en América Latina y el Caribe. La viruela es la única enfermedad que ha sido erradicada, es decir, que se ha eliminado en todo el mundo. En la región, existen esfuerzos continuos para eliminar otras enfermedades prevenibles como la oncocercosis, tuberculosis y la transmisión materno-infantil del VIH y de la sífilis, que hasta ahora solo se ha logrado en Cuba.

Para más información:

Más información acerca de la eliminación de la malaria se puede obtener a través del Ministerio de Salud en su país, la Organización Panamericana de la Salud (OPS/OMS),[3] la Alianza Científica para la Erradicación de la Malaria (MESA) [4] e iniciativas regionales, entre ellas la Iniciativa Amazónica Contra la Malaria (AMI)[5] financiada por la USAID, la Iniciativa de Eliminación de la Malaria en Mesoamérica y la Isla Española (EMMIE), y la Iniciativa Cero Malaria.

[3] [http://www.paho.org/esp/]
[4] [http://www.malariaeradication.org]
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Referências Selecionadas sobre a Eliminação da Malária

As seguintes referências contêm ferramentas e informações que os programas nacionais de malária podem consultar para tomar decisões bem-informadas no momento de abordar tendências epidemiológicas atuais, enquanto avançam em direção à eliminação da malária a longo prazo.

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2015-02

September 2015

FACT SHEET: Malaria in Low-Incidence Settings: Challenges for Control and Elimination

1. Monitoring the Efficacy of and Resistance to Antimalarial Medicines

The emergence of antimalarial resistance is a concern in the Americas. In South America, *Plasmodium falciparum* parasites are resistant to chloroquine, and the WHO is concerned that parasites may develop resistance to the antimalarial drug artemisinin as well as partner drugs in artemisinin based combination therapies.

- Lower incidence of malaria poses challenges for the feasibility of *in vivo* studies to test the efficacy of antimalarial medicines. Lack of resources to monitor patients under controlled conditions makes it more difficult to monitor the efficacy of medicines.
- Health science researchers need to find new *in vitro* or molecular markers to complement *in vivo* studies. Such markers make it possible for health systems to track antimalarial resistance as it emerges; however, reliable markers are not available for all parasite species. More research and innovation is needed, but is rarely supported in low-incidence settings.

Countries in Latin America and the Caribbean need to use the best combination of available tools for monitoring efficacy of antimalarials. The Amazon Malaria Initiative (AMI) and the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA, by its acronym in Spanish) join resources for operational research and innovation across the entire region, and standardize malaria research protocols so that multi-site studies are possible.

2. Maintaining Laboratory Capacity for Malaria Diagnosis

Microscopy remains the gold standard method for malaria diagnosis. However, as cases become less frequent, laboratory staff may have fewer opportunities to practice microscopy skills acquired for reading thick and thin blood slides. Supervision, as well as continued education and training opportunities for microscopists are essential to ensure that personnel develop expertise in this area and maintain their skills and capacities to properly diagnose malaria. AMI supported regional trainings and has helped to develop a quality assurance system to improve malaria diagnosis capacities across countries.

Low incidence of malaria can result in:

- Community health workers and health professionals mistaking signs and symptoms of malaria for other febrile illnesses.
- Health professionals failing to confirm clinical symptoms of malaria with proper laboratory diagnosis.

- Personnel losing the skills required to make a diagnosis and provide treatment.
- Malaria incidence and prevalence are under-reported to national surveillance systems.
- Increased probability of cases of severe malaria, as well as reintroduction and outbreaks.

WHO recommendations on malaria diagnostics in low-transmission settings[1]

1. Quality-assured rapid diagnostic tests (RDTs) and microscopy are the primary diagnostic tools for confirmation and management of cases of suspected clinical malaria in all epidemiological situations, including areas of low transmission, because of their good performance in detecting clinical malaria, their widespread availability and their relatively low cost. Similarly, RDTs and microscopy are appropriate for routine malaria surveillance (of clinical cases) in most malaria-endemic settings.

2. Several nucleic acid amplification techniques (NAA) are available, which are more sensitive in detecting malaria than RDTs and microscopy. Generally, use of highly sensitive diagnostic tools should be considered only in low-transmission settings where there is already widespread malaria diagnostic testing and treatment and low parasite prevalence rates (e.g. < 10%). Use of NAA-based methods should not divert resources from malaria prevention and control or from strengthening of health care services and surveillance systems.

3. Sub-microscopic *P. falciparum* and *P. vivax* infections are common in both low- and high-transmission settings. Use of NAA methods in malaria programmes should be considered for epidemiological research and surveys to map sub-microscopic infections in low-transmission areas. NAA methods might also be used for identifying foci for special interventions in elimination settings.

4. In most infections with asexual parasites, gametocytes are detectable by molecular amplification at densities that are not detectable by microscopy or RDTs. Most malaria infections (microscopic and sub-microscopic) should be considered potentially infectious and therefore potential contributors to ongoing transmission. Sensitive NAA methods are not required for routine detection of gametocytes in malaria surveys or clinical settings.

5. Common standards should be set for nucleic acid-based assays. The WHO international standard should be followed for *P. falciparum* DNA amplification assays, and standards should be set for other *Plasmodium species*, particularly *P. vivax.* A standard operating procedure should be prepared for sample collection and extraction and for the equivalent quantity of blood to be added to the assay. Development of an international external quality assurance system is strongly recommended to ensure that data obtained from NAA assays are reliable and comparable.

[1] WHO. Policy brief on malaria diagnostics in low-transmission settings; September 2014 http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=30398&lang=en

6. In order to define the role of serological assays in epidemiological assessments, the reagents (antigens and controls), assay methods and analytical approaches should be standardized and validated.

3. Epidemiological Surveillance – Low Parasite Loads Difficult to Detect

Low-incidence areas may have more subclinical infections, meaning that infections may be asymptomatic or parasite density may not be enough to be observed under a microscope.[2] With very low density, only more sensitive methods like polymerase chain reaction (PCR) or molecular analysis can detect the presence of parasites in the blood. This makes it more costly to detect and eliminate the human disease reservoir, which is a key control strategy in low-incidence settings.

Applications of malaria diagnostic tests in low-transmission settings

Low-transmission setting	Diagnostic technique	Comments
Routine surveillance and passive case detection	High-performance microscopy and quality-assured RDTs	
Malaria epidemiological surveys	A substantial proportion of infections are missed by microscopy and RDTs because of low parasite-density infections. An NAA-based test with an analytical sensitivity of about 2 parasites/µL will be a significant improvement over expert microscopy. Classic Polimerase chain reaction (PCR), quantitative PCR and Loop-mediated isothermal amplification (LAMP) can meet this specification if performed properly, but other validated, non-NAA-based tests with similar performance would be acceptable.	It is recommended that at least 50 µL of blood be collected from each individual and that the eluate used in the assay be derived from a minimum of 5 µL of blood. It might be acceptable to use smaller quantities of blood in assays with RNA targets if the targets are homogeneously mixed into the extracted material. Rapid turn-around times are not a high priority. Internal and external quality assurance procedures should be in place.
Focus investigations; reactive infection detection after identification of an index case	The NAA-based test should have an analytical sensitivity of 2 parasites/µL or 10 parasites in 5 µL of blood analysed. Field-adapted classical PCR, quantitative PCR and LAMP methods are appropriate, and a mobile laboratory may be a useful option.	Results should be available within < 48 h to allow prompt follow-up and treatment of positive cases. The choice of providing high-throughput, highly sensitive services at a location far from the field or lower-throughput, less sensitive NAA-based testing close to the point of care with rapid results depends on the context.

[2] Silva-Nunes, M et al. 2012. Amazonian malaria: Asymptomatic human reservoirs, diagnostic challenges, environmentally-driven changes in mosquito vector populations, and the mandate for sustainable control strategies. *Acta Trop*, 121(3):281-291.

		Quality assurance, including external quality assurance, should be in place for the analytical technique chosen.
Mass screening and treatment	RDTs and microscopy are not sufficiently sensitive for mass screening and treatment programmes in low-endemic settings. A moderate throughput test with an analytical sensitivity of 2 parasites/µL should be used to ensure identification of asymptomatic and low-density infections. Field-adapted classic PCR, quantitative PCR and LAMP methods are appropriate, and a mobile laboratory may be a useful option.	Results should ideally be available on the same day as testing, to maximize follow-up of individuals and provision of treatment. Quality assurance, including external quality assurance, should be in place for the analytical technique chosen.
Screening of special populations (e.g. at border crossings)	The local context will determine the most appropriate, cost-effective tools and whether screening at borders is feasible and useful. If screening of special populations is deemed appropriate, RDT or microscopy should be used for symptomatic infections only, and NAA-based tests with an analytical sensitivity of 2 parasites/µL should be used to detect infection in asymptomatic individuals.	Results should be provided on the same day in order to minimize loss to follow-up.

4. Treatment – Ensuring Access to Quality Medicines

Concentration of malaria incidence in remote locations with poor accessibility and/or among special populations makes supply chain management of antimalarial medicines more difficult.[3]

The main trends are that:

- Pharmaceutical vendors no longer have a business interest in selling the reduced volumes that are now required.
- Areas with low or no incidence fail to receive medicines, even when the risk of reintroduction is high.

[3] Management Sciences for Health. Malaria Pharmaceutical Management in Low-Incidence Settings: Lessons Learned from the Americas. PowerPoint presentation made on behalf of the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program. April 25, 2014. URL: linksmedia.net/AMI/extras/MalariaPharmMgmt.pdf

- The informal private sector sells antimalarial medicines of questionable quality, some of which are counterfeit.
- Low turnover of medicines may lead medicine efficacy to decline in poor storage conditions (e.g. high temperature, humidity, direct exposure to sunlight, deficient refrigeration).
- Insufficient resources for ensuring medicine quality assurance and control limit the ability of health professionals to collect statistically representative samples of medicines for quality testing.[4]
- As countries move closer to elimination, providing access to quality medications, particularly to mobile, migrant, and indigenous populations, becomes more important to the overall success of malaria programs.[5]
- Medicines purchased may expire before they are needed.

AMI has facilitated the joint procurement of antimalarial medicines through the Pan American Health Organization (PAHO/WHO) Strategic Fund. In addition, AMI created guidelines on the programming of medicines in low-incidence areas, and has worked with health systems to improve special populations' access to prevention, diagnosis, and quality treatment. Expanded access to free, quality antimalarial medicines through the public sector helps to make unregulated medicines less appealing.

Where needed, AMI works with health systems to improve pharmaceutical access and storage conditions at the decentralized level. AMI also provides training, reference standards and manuals, and supplies for countries' medicine regulatory agencies and official medicine control laboratories.

5. Communication and Stakeholder Engagement

Low incidence, coupled with the fact that malaria disproportionately affects poor and marginalized populations, may lead to malaria's disappearance from the public policy agenda. As malaria incidence decreases, the health system shifts its focus and loses efficiencies in surveillance and other key interventions. Abandonment of malaria threatens gains against the disease by weakening the implementation of technical interventions, the provision of continuous training to health personnel, and ongoing investments in research and innovation

[4]Barillas, E., Barojas, A, y V. Pribluda. 2011. Documento estratégico para la gestión del suministro y garantía de la calidad de los medicamentos e insumos para el diagnóstico y tratamiento de la malaria. Preparado por el Programa Strengthening Pharmaceutical Systems (SPS) de Management Sciences for Health (MSH), el Programa Promoting the Quality of Medicines Program (PQM) de la Farmacopea de Estados Unidos de América (USP, inglés) y Links Media, LLC. para la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) bajo la Iniciativa Amazónica Contra la Malaria. Gaithersburg, MD: Links Media, LLC. URL: http://usaidami.org/extras/DocumentoEstrategicoyGestioncalidadmedicamentos.pdf

[5] World Health Organization. 2015. *Global Technical Strategy for Malaria 2016-2030*, p. 8.

are needed in order to accompany genetic changes in malaria parasites and mosquitoes. [6,7,8] Prevention, diagnosis, treatment, and detection of drug resistance measures suffer, leaving the health system unprepared to deal with the reintroduction of malaria.

Main challenges are that:

- Institutions lose the capacity to respond to outbreaks.
- Public and private sectors reduce investments in malaria research and innovation; operational research to assess the effectiveness of key interventions stops.
- Support for implementation of key technical interventions declines, creating problems for maintaining a strong surveillance system, keeping good quality diagnosis capacity in place, as well as a constant supply of quality medications, and continuing to provide education to health professionals and patients.
- Affected communities perceive lower risk and stop using proven prevention methods.

AMI communicates and advocates for the continuation of scientifically sound technical interventions and the documentation of efforts to enable learning and knowledge sharing about state-of-the-art best practices. This strengthens health systems' ability to adapt and respond to changes in malaria incidence. In addition, AMI develops relevant and timely malaria communication strategies that promote key evidence-based messages, disseminate knowledge, and build alliances with a wide range of stakeholders.

Last updated on October 27, 2015

[6] Nájera JA, González-Silva M, Alonso PL (2011) Some Lessons for the Future from the Global Malaria Eradication Program (1955–1969). *PLoS Med* 8(1): e1000412. http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1000412 Published: January 25, 2011

[7] Malaria Consortium. World Malaria Day 2014: Lessons from the past – can malaria ever be eradicated? http://www.malariaconsortium.org/news-centre/lessons-from-the-past-can-malaria-ever-be-eradicated.htm

[8] Cohen, J. et al. Malaria resurgence: a systematic review and assessment of its causes. *Malaria Journal* 2012, 11:122 http://www.malariajournal.com/content/11/1/122

Planning Workshop for the National Strategic Plan (PEN) to Eliminate Malaria in Guatemala (2015 – 2020)

Guatemala City, Guatemala
October 21 - 25, 2014

Communication Component of the Amazon Malaria Initiative (AMI)

Trip Report

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About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

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Abbreviations and Acronyms

AMI	Amazon Malaria Initiative
BCC	Behavior Change Communication
CCoP	Communication Community of Practice
CHAI	Clinton Health Access Initiative
COMISCA	Council of the Ministers of Health of Central America and Hispaniola
COR	Contracting Officer's Representative
EMMIE	Global Fund Initiative for the Elimination of Malaria from Mesoamerica and Hispaniola
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
IEC	Information, Education, and Communication
MSH	Management Sciences for Health
MSPAS	Ministry of Public Health - Guatemala
PAHO	Pan American Health Organization
PEN	National Strategic Plan
PMI	President's Malaria Initiative
RAVREDA	Amazon Network for the Surveillance of Antimalarial Drug Resistance
RBM	Roll Back Malaria Partnership
SBCC	Social and Behavior Change Communication
SIAPS	Systems for Improved Access to Pharmaceuticals and Services Program
TA	Technical Assistance
USAID	U.S. Agency for International Development
WHO	World Health Organization

I. Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to and quality of malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (the AMI technical partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health and national malaria control programs grouped in the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise through South–South collaboration promoted and supported by AMI). Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance (TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

II. Purpose of the Trip

On October 21 - 25, 2014, Mr. Ricardo Echalar, Technical Coordinator/Deputy Project Manager of Links Media traveled to Guatemala City, Guatemala to participate in the National Planning Workshop for the National Strategic Plan (PEN) to Eliminate Malaria in Guatemala (2015 – 2020). Guatemala's Ministry of Health Sub-Program for Malaria organized the meeting in collaboration with AMI/RAVREDA through Pan American Health Organization (PAHO) and the Clinton Health Access Initiative (CHAI).

Links Media, attended this workshop as the implementing partner for communication under AMI, in order to provide technical input on social and health communication for the next iteration of the National Strategy for Malaria in Guatemala. In addition, Links Media used this opportunity to liaise with key regional actors who were also in attendance including the Director of the Regional Malaria Initiative for the Elimination of Malaria in Meso-America and the Island of Hispaniola (EMMIE), the regional consultant for the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS), and staff from the CHAI, in order to build coordination on regional activities.

III. Scope of Work

The scope of work for Links Media included the following specific activities:

- Provide technical input into the social and health communication component of the National Strategic Plan for Malaria Elimination in Guatemala (2015 – 2020) during a workshop organized by the Ministry of Health's Sub-Program for Malaria to be held at the Hotel Conquistador (Via 5, 4-68 zone 4, Ciudad de Guatemala).
- Liaise with regional actors participating in the national workshop including PAHO, to help in the development of the regional communication strategy for malaria control and prevention in Central America.
- Document key aspects and recommendations from the workshop, in order to provide communication guidance for similar activities in other countries in Central America.

IV. Source of Funding for the Trip

This trip was supported through budgeted funds from USAID/Peru contract (Contract No. AID-527-C-13-00004) with Links Media, LLC for the Amazon Malaria Initiative (AMI) Communication Component.

V. Trip Activities

The main activity for this trip was to attend and participate in the three-day workshop in Guatemala City, Guatemala.

Day One of Meeting, October 22, 2014

The workshop was held at the Hotel Conquistador in Zone 4 of Guatemala City. There were about 80 participants from a variety of organizations, primarily from *Ministerio de Salud Pública* (MSPAS), with representation from other ministries, universities, and from sugar cane associations. CHAI also sponsored this event with additional support from PAHO through AMI/RAVREDA.

The morning sessions were dedicated to seven presentations (Diagnostics, Treatment, Surveillance, an overall situation report, Vector Control, IEC/BCC, and overall management of the Malaria Subprogram). These presentations were very good and will be shared with the participants via Dr. Aguilar, the director of the Sub-program for Malaria. There was a lot of good information on the number of cases, types of cases, and needs to help achieve elimination of all autochthonous cases by 2020 (2017 for *P. falciparum* and 2020 for *P. vivax*), which multiple presenters stated it will be difficult to achieve. There was not a lot of information on pharmaceutical supply management, which Ms. Jane Briggs (SIAPS) noted and told the audience that it was an important topic to consider.

During the lunch break Links Media spoke with Dr. Aguilar and Jaime Juarez, who is the country PAHO consultant for malaria. Dr. Aguilar and Mr. Juarez both had expectations that Links Media would provide more country-level TA beyond the workshop. Links Media communicated to them that Links Media's scope of work is finalize the AMI communication strategy for Central America and that Links Media could provide limited assistance as a follow up the regional strategy. Links Media told them that we were interested in learning more about the country perspective and how EMMIE plays a role. They did not have a lot of information on EMMIE, though there was a separate EMMIE regional meeting the previous week in Guatemala.

In the afternoon the meeting was divided into working groups. Links Media was in the IEC/BCC working group, which was facilitated by Ms. Iris Santizo who manages the Global Fund Grant on IEC/BCC that will go on until 2016. During the working group, the participants were asked to identify the key challenges that impacted each group. These challenges including lack of coordination, political commitment, staff turnover, funding, etc. These were very common challenges among the other working groups.

Links Media spoke with Ms. Santizo regarding the work she is doing under the Global Fund Grant. She was not familiar with many of the malaria communication resources that were available on the global level, including from the Roll Back Malaria Partnership (RBM). Links Media shared these resources with her. It appears that they really need help in creating a National Strategy for Communication Interventions that brings together all actors. Links Media collected the names and information of the working group (See Annex 3) so that there would be follow-up beyond the meeting, such as through the creation of a communication community of practice.

Day Two of Meeting, October 23, 2014

The second day began with a brief presentation on the Mission and Objectives of the new strategy by Dr. Aguilar. This presentation received a lot of feedback, and the Mission and Objective statements were tabled for the working group that would be addressing the management of the strategy. This day was primarily focused on working groups that broke down objectives and expected results for each thematic area.

Links Media continued to work in the IEC/BCC group. In this working group, we identified key action items and needs, including the need for a communication guide to be used by all communication professionals across sectors to help address malaria prevention and control. This would be shared with the various working group members and ministries to ensure there is harmonization among actors.

It is clear that there is a great need for the communication professionals working on malaria to become more familiar with the global guidance and methods that are being developed by RBM and PMI. Links Media shared a lot of the information on the first day, but it is only available in English, French, and some cases Portuguese. There may be an opportunity for Links Media to provide dissemination of these resources and possibly identify/make them available in Spanish.

It seems that in terms of IEC/BCC, HIV/AIDS is the only technical area that has existing resources in Guatemala. One of the realities mentioned is that it is difficult to create strategies and guides for specific areas when there are simply not enough resources. With this said, there was a good discussion and hopefully this communication group can move forward. The Global Fund IEC/BCC Grant coordinator could serve as the person who keeps it going. However, this grant ends in 2016.

During the second day of the workshop, the communication working group had a discussion on messaging regarding prevention vs. diagnosis and treatment. There was a disconnect among some of the working group members on the need for messaging on both prevention and diagnosis and treatment. This was another sign that communication capacity may be

limited and there is a need to provide an orientation on basic communication practices within Guatemala.

Some of the members stated that it was an either/or situation, where you should only discuss prevention or diagnosis and treatment, but not both. Their rationale was that if you discuss both, you have failed at prevention. Links Media worked with the group to help them understand that prevention, diagnosis and treatment, as well as other areas are all important within the wider malaria prevention and control context. This is especially true during an elimination campaign, when the ministry must follow-up with all cases to identify their origin and ensure proper treatment. As an example that helped them understand the importance of both prevention and diagnosis and treatment, Links Media had asked them about HIV/AIDS messaging, for which they understood the importance of both prevention (safe sex practices) and diagnosis and treatment (HIV testing and proper medicines). The final output of the workshop addresses both prevention and diagnosis and treatment.

At the end of the day, each working group reported back to the larger audience. Each group had a lot of good points and there was a lot of discussion from the various participants. It was obvious that there was representation from various sectors and ministries with valuable expertise in the room. One concern that remains is who will fund this strategy, and who will actually implement. It is possible that this strategy will end up as an exercise and will not become a reality.

During the day, Links Media had a lengthy discussion with Dr. Norma Padilla. Dr. Padilla has a strong familiarity with AMI, having worked with the initiative previously. Links Media gave Dr. Padilla the background of Links Media's scope of work and told her that it would be good to try to align the regional communication strategy for AMI with the vision and objectives of EMMIE. Dr. Padilla indicated that there will be two additional meetings for EMMIE and will present the overall strategy to Council of the Ministers of Health of Central America and Hispaniola (COMISCA) for approval at the end of the 2014 calendar year. This will be the driving strategy for the region. She thought it would be helpful for Links Media to become more involved with EMMIE and help with advocacy and communication to complement the work done under AMI. This would require new funds outside of AMI.

Day Three of Meeting, October 24, 2014

On the third and final day of the workshop, the working groups provided final recommendations for activities moving forward with the strategy development. These recommendations were then presented to the wider audience.

During this day, Links Media had a more in-depth conversation with Ms. Santizo, the Global Fund IEC grant manager. Ms. Santizo is in the middle of developing a country-level IEC communication plan. However, she needs help to complete it. In addition, she was not familiar with a lot of the global guidance for this type of activity. Links Media shared more resources with her and told her that we could communicate after the meeting to see how we could help, but that our Scope of Work was only for the regional communication strategy.

VI. Conclusions and Recommendations

It is clear that there is an unmet need for communication technical assistance at the country-level, especially in the areas of IEC and SBCC. The purpose of communication should be to help change behaviors associated with malaria, including prevention and control, and to help

communities and the country move towards elimination. Links Media had a fruitful exchange with Guatemala malaria actors and key regional technical partners. Links Media obtained useful information and ideas from this event and established new working relationships to help in the creation of the regional communication strategy.

Based on the work conducted during this meeting, Links Media recommends the following general recommendations:

- That the IEC Working Group be established as a National Malaria Communication Community of Practice (CCoP) that will be seen as the malaria communication authority within Guatemala.
- That a Country-level Malaria Communication Strategy and Guide be developed and shared with all key stakeholders for testing and dissemination.
- That communication actors become better familiar with global and regional malaria communication guidance from AMI, WHO, PMI, and RBM.

The following activities are recommendations for Links Media to complete after the meeting:

- Create an evaluation tool based on global malaria health communication guidance from RBM and other actors that can be used to assess the key components in the national strategy. A proposal will be created to send to USAID/Peru for prior approval.
- Follow up with Dr. Aguilar and the co-sponsors of the event including the CHAI (Mr. Luis Perez and Mr. Sebastian Salvatore) and PAHO (Mr. Jaime Juarez) to ensure the regional communication strategy incorporates the strategy done at the country-level.
- Hold a follow-up meeting with Dr. Norma Padilla to further address the role of EMMIE and how Links Media's work with AMI should reflect EMMIE to harmonize communication work.

Annex 1
Workshop Agenda

Agenda para Taller de Planificación Estratégica Nacional hacia Eliminación de la Malaria en Guatemala

Octubre 22 al 24 2014

Hotel Conquistador

Vía 5, 4-68 zona 4 ciudad de Guatemala

Objetivos principales del taller:

- Definir objetivos específicos por áreas temáticas en base a visión, misión y objetivos general preliminares.
- Decidir las actividades a realizar para cada uno de los objetivos específicos por áreas temáticas

Metodología propuesta:

- Se establecerán grupos de trabajo focalizados por área, tomando en consideración la experiencia de cada participante
- Los resultados de las discusiones grupales serán presentadas en sesión plenaria para el conocimiento y análisis de todos los participantes
- El taller será liderado por el Ministerio de Salud Pública y Asistencia Social (MSPAS), específicamente por el Sub-Programa de Malaria, con el apoyo del Comité Técnico y otros socios Cooperantes.

Día 1 – 22 de Octubre

8:30 – 9:00	**Registro de Participantes.**
9:00 – 9:30	**Inauguración del taller y Presentación de participantes**
9:30 – 10:00	**Introducción al PEN: presentación de resultados del primer taller y objetivos del segundo taller. (Sub Programa Nacional de Malaria)**
10:00 – 10:45	**Presentaciones de estado situacional de Malaria en Guatemala** 1. **Diagnóstico -Laboratorio Nacional de Salud-** 2. **Tratamiento -Sub-Programa Malaria MSPAS-** 3. **Sistemas de Vigilancia -Centro Nacional de Epidemiología y**

	Subvención Malaria, Fondo Mundial-
10:45 – 11:00	Café.
11:00 – 12:30	**Presentaciones de estado situacional de Malaria en Guatemala** **4. Control Vectorial -Sub Programa de Entomología y OPS-** **5. IEC / BCC –Subvención Malaria, Fondo Mundial-** **6. Gerencia de Programa -Vice Ministerio Técnico de Salud y PNETV-**
12:30 – 13:30	Almuerzo.
13:30 – 15:00	**Mesas de trabajo para análisis de respuesta nacional (análisis de brechas) por áreas temáticas.**
15:00 – 15:30	Intervalo.
15:30 – 17:30	**Sesión Plenaria para presentación y discusión de resultados de grupos de trabajo.**
17:30	**Cierre del día 1.**

Día 2 – 23 de Octubre

8:30 – 9:00	**Resumen de avances del día 1.**
9:00 – 10:30	**Presentación de Visión, Misión y Objetivos Generales preliminares.**
10:30 – 11:00	Café.
11:00 – 12:30	**Mesas de trabajo para desarrollo de objetivos específicos por áreas temáticas.**
12:30 – 13:30	Almuerzo.

13:30 – 15:00	**Sesión Plenaria para presentación y análisis de resultados de mesas de trabajo.**
15 :00 – 15:30	Intervalo.
15:30 – 17:30	**Mesas de trabajo para desarrollo de actividades por objetivos específicos definidos en sesión anterior.**

Día 3 – 24 de Octubre

8:30 – 10:30	**Mesas de trabajo para desarrollo de actividades por objetivos específicos definidos en sesión anterior (continuación).**
10:30 – 11:00	Café.
11:00 – 13:00	**Sesión Plenaria para presentación y análisis de resultados de mesas de trabajo.**
13:00 – 14:00	Almuerzo.
14:00 – 16:00	**Sesión Plenaria para presentación y análisis de resultados de mesas de trabajo (continuación).**
16:00 – 16:15	Intervalo.
16:15 – 17:00	**Cierre de taller y próximos pasos para el PEN.**

Annex 2
Key Contacts

Dr. Sergio Aguilar
Ministry of Public Health (MSPAS)
Malaria Subprogram Manager
E-Mail: penmalaria2015@hotmail.com

Ms. Jane Briggs
MSH/SIAPS
Country Focal Point
E-Mail: jbriggs@msh.org

Mr. Jaime Juarez
PAHO/WHO
Country Consultant – Malaria/Vector-Borne Diseases
E-Mail: juarezja@paho.org

Dr. Norma Padilla
PASMO
Director of the Global Fund Initiative for Malaria Elimination in Meso-America and Hispaniola (EMMIE)
E-Mail: npadilla@pasmo-ca.org

Mr. Luis Perez
Clinton Health Access Initiative (CHAI)
Regional Coordinator

Mr. Sebastian Salvatore
Clinton Health Access Initiative (CHAI)
Country Coordinator (Guatemala & Panama)

Ms. Iris Santizo
Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)
IEC Grant Manager
E-Mail: iecmalaria@gmail.com

Annex 3

IEC/BCC Working Group Contact Information

Nombre	Organización	Correo electronico	Número de telefono	Dirección
Ricardo Echalar	Links Media	rechalar@linksmedia.net	+1 (301) 787-5495	Washington, DC – USA
Rachel de Morales	MSH / SIASP	racheltlm@yahoo.com	4212 8400	Ciudad Guatemala
Ovidio Rodriguez M	Proedusa / SIAS	omarino112@yahoo.com	5105 3232	
Iris Santizo	IEC / Subvención Malaria	iecmalaria@gmail.com	5240 1857	Ciudad. Guatemala
Freddy Vivar	UCS / DEPAP / MSPAS	Freddy.a.Vivar@gmail.com	41241564	Guatemala.
Juan Valentin Santos	" " "	Juanva69@hotmail.com	40212750	Ciudad.
Cristian Castillo Vargas	Planificación / MIDES	ccastillo@mides.gob.gt	54040081	Guatemala.
Iraida Zucely Ardón	colaboradora malaria	Iraidaardongonzalez@gmail.com	59814987 y 5585 5673	Guatemala – Guatemala
Héctor Adán Muñoz Audón	MINTRAB	hector_audon@hotmail.com	24222541-45 53251597	Escuintla – Guatemala. Guatemala, Guatemala.
Daniel Alejandro Bal	Dirección Área de Salud de A.V.	asodichamelco@yahoo.com	59192499	Cobán, A.V.
Telhma Mirande	Mineduc	tmiranda@mineduc.gob.gt	56327912	6 calle 1-87 zona 10 Guatemala

Annex 4
Selected Photograph

Dr. Sergio Aguilar, Director of the Sub-Program for Malaria making opening remarks

Annex 5

IEC PRESENTATION

Diagnóstico

- ✓Reforzar el tema de identificación de síntomas

- ✓Promover la aceptación de diagnóstico de PDR y gota gruesa.
- ✓ Promoción de Colaboradores Voluntarios.

Control Integrado de Vectores

- ✓ Apoyo en la capacitación al equipo técnico que se involucra en tratamiento de criaderos.
- ✓ Coordinación de actividades con líderes y autoridades comunitarias para capacitación en tratamiento de criaderos.
- ✓ Capacitación en tratamiento de criaderos a nivel comunitario.
- ✓ Apoyo en la comunicación de las actividades a través de medios locales y alternativos.
- ✓ Coordinar relaciones estratégicas con instituciones que tienen presencia en las comunidades.

Prevención y Control

Reforzar los temas de:

- ✓Identificación de síntomas
- ✓Diagnóstico adecuado
- ✓Malaria

Tratamiento

- ✓ Desestimulo de la automedicación
- ✓ Fortalecer los mensajes de tratamiento con: enfermos, expendedores de medicamentos y Colaboradores Voluntarios(gestión de medicamentos AMMI /RAVREA).
- ✓ Trabajo comunitario visitas domiciliares, seguimiento de casos.

- ✓ Compra de material (artesanal, impreso, producciones de tv y radio) cubierto por el Fondo Mundial a través de la Subvención Malaria.
- ✓ Apoyo de AMI/RAVREDA con la impresión de materiales para diagnóstico y tratamiento.
- ✓ Impresión de juegos pedagógicos de malaria dirigido a escuelas, queda pendiente por falta de financiamiento.

Actividades con Escolares

Seguimiento en la coordinación con CTA´s, maestros y alumnos a través de diversas actividades contextualizadas a las áreas.

Tomando en cuenta los lineamientos de PROEDUSA, organizando a través de la CONAES.

Participación Comunitaria

- ✓ Coordinación de actividades con organizaciones locales –COCODES- actores y líderes comunitarios.
- ✓ Coordinación de actividades con instituciones que tienen presencia en los departamentos, municipios y/o localidades.
- ✓ Es importante tomar en cuenta el acuerdo de Municipios Saludables, que coordina PROEDUSA.

Annex 6

USAID COR Concurrence/Country Clearance

Thursday, November 13, 2014 4:46:21 PM Eastern Standard Time

Subject: Re: FW: Taller para elaboración PEN de eliminación de la malaria en Guatemala
Date: Thursday, October 9, 2014 1:13:14 PM Eastern Daylight Time
From: Jaime Chang
To: Julie de Carvalho
CC: Ricardo Echalar, Brian

Dear Julie and Ricardo,

I concur with the proposed trip to Guatemala. Please make sure it will be within our budget.

Jaime

On Wed, Oct 8, 2014 at 10:01 AM, Julie de Carvalho <jdecarvalho@linksmedia.net> wrote:

> Hello Jaime:
>
> We received the invitation below from Dr. Aguilar of the Guatemala NMCP. He would like Links Media to participate in the design of the National Strategic Plan for malaria, particularly for the communication component. I believe we had discussed this with you previously, but now we know that the dates are October 22-24, 2014.
>
> If you agree, we propose to send Ricardo to provide TA as the Technical Coordinator for communication. He can systematize his recommendations for possible use by other Central American countries. Ricardo would also take advantage of the 3-day visit to meet with the new EMMIE Project Manager to ensure that our Central America regional communication strategy will be in alignment with the EMMIE initiative.
>
> Do you concur with this travel? We can talk more about it by phone tomorrow morning. Once we have your answer, we will seek clearance from the USAID country mission.
>
> Best regards,
>
> Julie
>
> LINKS MEDIA
> Creating a Culture of Learning

Julie N. de Carvalho, MPH | Senior Project Manager
T 301.987.5495, ext. 109 | F 301.987.5498
451 Hungerford Drive, Suite 503 • Rockville, MD 20850, USA
www.linksmedia.net

Links Media is a management consulting company providing expertise and business solutions in ICT.

From: Sergio Aguilar [mailto:aguilarmalaria@hotmail.com]
Sent: Tuesday, October 07, 2014 10:15 PM
To: Julie de Carvalho
Subject: Talle para elaboración PEN de eliminación de la malaria en Guatemala

Estimada Julie, el día de hoy se estableció la fecha para el taller para la elaboración del Plan Estratégico Nacional 2015-2020 para la eliminación de la malaria en Guatemala. Será los días 22,23 y 24 de octubre la ciudad de Guatemala. Tal y como hemos venido hablando será un gusto tenerles como participantes a dos de ustedes. Quedo atento a su respuesta. Saludos

Dr. Aguilar

From: aguilarmalaria@hotmail.com
To: jdecarvalho@linksmedia.net
CC: rechalar@linksmedia.net
Subject: RE: CAPACITACION A COL. VOLUNTARIOS Guatemala
Date: Wed, 23 Jul 2014 15:09:32 -0600

Apreciados Julie y Echalar, gracias por el interés, aún no hay fecha precisa, pero la reunión será en septiembre de 2014. Tan pronto tenga la fecha precisa les estaré avisando. Saludos

Dr. Aguilar

From: jdecarvalho@linksmedia.net
To: aguilarmalaria@hotmail.com
CC: rechalar@linksmedia.net
Subject: RE: CAPACITACION A COL. VOLUNTARIOS Guatemala
Date: Wed, 23 Jul 2014 15:20:15 -0400

Apreciado Dr. Aguilar,

Por favor, reciba un saludo. Escribo con una consulta. ¿Es que la reunión para elaborar un plan estratégico nacional para el control de la malaria en Guatemala ya tiene fecha? Nosotros comentamos la idea con USAID/AMI y ellos posiblemente estén dispuestos a apoyar nuestra participación para dar aportes sobre el componente de comunicación. Lo que nos hace falta es la fecha. De todo modo, más adelante estaremos en comunicación sobre otros temas y actividades que hemos tratado durante nuestra reunión por Skype.

Gracias,

Julie

Julie N. de Carvalho, MPH | Senior Project Manager
T 301.987.5495, ext. 109 | F 301.987.5498
451 Hungerford Drive, Suite 503 • Rockville, MD 20850, USA
www.linksmedia.net

Links Media is a management consulting company providing expertise and business solutions in ICT.

From: Sergio Aguilar [mailto:aguilarmalaria@hotmail.com]
Sent: Tuesday, June 17, 2014 1:56 PM
To: Julie de Carvalho
Subject: CAPACITACION A COL. VOLUNTARIOS Guatemala

--

Dr. O. Jaime Chang N. MD, MSc, MPH
Project Management Specialist
Office of Health and Education
USAID/Peru

Telephone: +(51-1)-6181266
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www.usaid.gov
http://www.facebook.com/home.php#!/usaid.peru

Amazon Malaria Initiative http://www.usaidami.org/

Follow us:

Subject: Fwd: -- FOR YOUR APPROVAL -- USAID/Guatemala visit - Ricardo Echalar - Links Media (October 21-25, 2014

Date: Thursday, October 16, 2014 4:07:34 PM Eastern Daylight Time

From: Julie Boccanera

To: rechalar@linksmedia.net

CC: Brian Kubiak, Julie de Carvalho, Jaime Chang, Natalia Machuca, msanchez@linksmedia.net, Daniel Muralles

FYI-

---------- Forwarded message ----------
From: **Sheila Yrungaray** <syrungaray@usaid.gov>
Date: Wed, Oct 15, 2014 at 4:13 PM
Subject: Fwd: -- FOR YOUR APPROVAL -- USAID/Guatemala visit - Ricardo Echalar - Links Media (October 21-25, 2014
To: rechalar@linksmedia.net
Cc: Julie Boccanera <jboccanera@usaid.gov>

Mr. Echalar,

Please find below Mission's approval for your visit to Guatemala.
Rgds.

Sheila Yrungaray
Project Management Assistant | Health and Education Office
USAID|Guatemala
Km. 6.5 Final Boulevard Los Próceres. Santa Catarina Pinula, Guatemala
T: (502) 2422-4250 | F: (502) 2422-4589 | visit us @ http://www.usaid.gov/
syrungaray@usaid.gov

---------- Forwarded message ----------
From: **Jeffrey Lehrer** <jlehrer@usaid.gov>
Date: Wed, Oct 15, 2014 at 2:50 PM
Subject: Re: -- FOR YOUR APPROVAL -- USAID/Guatemala visit - Ricardo Ehchalar - Links Media (October 21-25, 2014
To: "Christopher N. Steel" <csteel@usaid.gov>
Cc: Sheila Yrungaray <syrungaray@usaid.gov>

Approved
Sent from my iPhone

On Oct 15, 2014, at 2:38 PM, "Christopher N. Steel" <csteel@usaid.gov> wrote:

> Approved.
>
> --
> Christopher Steel, EdD
> Subdirector, Oficina de Salud y Educación

USAID - Agencia para el Desarrollo Internacional
Km. 6.5 Final Boulevard Los Próceres
Santa Catarina Pinula, Guatemala 01051
Celular: (+502) 4769-5380
Oficina: (+502) 2422-4201
De EEUU: (+1) 202-216-6229 x4201
Email: csteel@usaid.gov

On Wed, Oct 15, 2014 at 2:36 PM, Julie Boccanera <jboccanera@usaid.gov> wrote:

I approve.

---------- Forwarded message ----------
From: **Sheila Yrungaray** <syrungaray@usaid.gov>
Date: Wed, Oct 15, 2014 at 2:34 PM
Subject: -- FOR YOUR APPROVAL -- USAID/Guatemala visit - Ricardo Ehchalar - Links Media (October 21-25, 2014
To: Julie Boccanera <jboccanera@usaid.gov>

Julie,

For your approval please find Ricardo Echalar's request to travel to Guatemala from October 21-25, 2014. The purpose of this trip is to provide technical input into the social and health communication component of the National Strategic Plan for Malaria Elimination in Guatemala (2015-2020) during a workshop organized by the Ministry of Health's Sub-Program for Malaria.

ROUTING (Kindly keep me copied): syrungaray@usaid.gov

1. Christopher Steele, HEO
2. J. Lehrer, AD/DIR

Rgds.

Sheila Yrungaray
Project Management Assistant | Health and Education Office
USAID|Guatemala
Km. 6.5 Final Boulevard Los Próceres. Santa Catarina Pinula, Guatemala
T: (502) 2422-4250 | F: (502) 2422-4589 | visit us @ http://www.usaid.gov/
syrungaray@usaid.gov

-

From: Ricardo Echalar <rechalar@linksmedia.net>
Date: October 14, 2014 at 10:35:29 AM CST
To: <jboccanera@usaid.gov>
Cc: Brian Kubiak <bkubiak@linksmedia.net>, Julie de Carvalho

<jdecarvalho@linksmedia.net>, Jaime Chang <jachang@usaid.gov>, Natalia Machuca <nmachuca@usaid.gov>, "msanchez@linksmedia.net" <msanchez@linksmedia.net>
Subject: Request for Action - electronic Country Clearance (eCC)

Dear Ms. Boccanera,

This e-mail requests for country clearance for Mr. Ricardo Echalar, Technical Coordinator, under the Links Media managed Communication Component of the Amazon Malaria Initiative. Mr. Echalar will be traveling to Guatemala City, Guatemala, on or about October 21 – 25, 2014. Mr. Echalar will be traveling to Guatemala City, Guatemala to provide the following services:

- Provide technical input into the social and health communication component of the National Strategic Plan for Malaria Elimination in Guatemala (2015 – 2020) during a workshop organized by the Ministry of Health's Sub-Program for Malaria to be held at the Hotel Conquistador (Via 5, 4-68 zone 4, Ciudad de Guatemala).
- Liaise with regional actors participating in the national workshop including PAHO, which will help in the development of the regional communication strategy for malaria control and prevention in Central America.
- Document key aspects and recommendations from the workshop, which can provide communication guidance for similar activities in other countries in Central America.

Attached you will find the completed eCC form. This activity has received concurrence from the USAID/Peru Contracting Officer Representative (COR), Dr. Jaime Chang. Costs incurred under this activity have been budgeted under the project.

Your prompt action is kindly requested. Thank you.

Sincerely,

Ricardo Echalar

--
Julie Boccanera
Health Officer
Health & Education Office
USAID/Guatemala
Office: (502) 2422-4202
IVG line: (202) 216-6329 ext 4202
jboccanera@usaid.gov

--
Julie Boccanera
Health Officer
Health & Education Office
USAID/Guatemala

Follow-up Meeting for the Guiana Shield and Consultations on the Draft Plan for Artemisinin Resistance Containment and Elimination in South America

Paramaribo, Suriname
November 11 – 13, 2014

Amazon Malaria Initiative (AMI)
Amazonian Network for Surveillance of Antimalarial Resistance (RAVREDA)

Trip Report

Links Media, LLC
451 Hungerford Drive, Suite 503
Rockville, MD 20850 USA
Tel: (+1) 301-987-5495
Fax: (+1) 301-987-5498
Email: jdecarvalho@linksmedia.net

Submitted by
Julie de Carvalho
December 2014

This report was made possible through support provided by the U.S. Agency for International Development, under the terms of Contract No. AID-527-C-13-00004. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

USAID FROM THE AMERICAN PEOPLE

LINKS MEDIA Creating a Culture of Learning

About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

Recommended Citation

Links Media, 2014. Follow-up Meeting for the Guiana Shield and Consultations on the Draft Plan for Artemisinin Resistance Containment and Elimination in South America, Paramaribo, Suriname, November 11–13, 2014: Trip Report. Submitted to the U.S. Agency for International Development by Links Media, LLC. Rockville, MD: Links Media, LLC.

Table of Contents

Abbreviations and Acronyms

AMI	Amazon Malaria Initiative
BCC	Behavior change communication
CDC	U.S. Centers for Disease Control and Prevention
COTR	Contracting Officer's Technical Representative
EMMIE	Elimination of Malaria from Mesoamerica and Hispaniola
GMP	Global Malaria Program
IRS	Indoor residual spraying
KAP	Knowledge, attitudes and practices
LAC	Latin America and Caribbean
LLIN	Long-lasting insecticide-treated nets
M&E	Monitoring & evaluation
MERCOSUR	Common Market of the South
MOH	Ministries of Health
MSH	Management Sciences for Health
PAHO	Pan American Health Organization
RAVREDA	Amazon Network for the Surveillance of Antimalarial Drug Resistance
RDT	Rapid diagnostic test
SNEM	Ecuador's National Control Service for Vector-Borne Diseases
SWOS	Suriname's Foundation for Scientific Research
USAID	U.S. Agency for International Development
USP	U.S. Pharmacopeial Convention

I. Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to, and quality of, malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (the AMI technical partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health and national malaria control programs grouped in the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise through South-South collaboration promoted and supported by AMI. Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance (TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

II. Purpose of the Trip

From November 10-14, 2014, Julie de Carvalho of Links Media traveled to Paramaribo, Suriname to participate in the Follow-up Meeting for the Guiana Shield and Consultations on the Draft Plan for Artemisinin Resistance Containment and Elimination in South America, organized by the Pan American Health Organization (PAHO) and with support from the Drug Resistance and Containment Unit of the WHO Global Malaria Program (GMP).

Links Media attended in order to provide technical expertise in the area of health communication, specifically behavior change communication (BCC) and advocacy.

III. Scope of Work

The scope of work for Links Media included the following specific activities:

- Accompany the latest results of artemisinin efficacy trials in Brazil, Guyana, Suriname and French Guiana.
- Contribute to technical discussions about the draft Plan for Artemisinin Resistance Containment and Elimination in South America.
- Gain additional insights into the malaria situation on the ground in mining areas of the Guiana Shield, as well as targeted responses planned by Ministries of Health (MOHs) of Brazil, Guyana, and Suriname.
- Refine the communication component of the draft regional plan.
- Guide message development to reach regional decision-makers with a fact-based call to action regarding the status of artemisinin resistance in South America.

IV. Source of Funding for the Trip

Contract funds from USAID/Peru AMI supported this trip.

V. Trip Activities

AMI partners, ministerial representatives of five out of the 11 AMI countries (Brazil, Ecuador, Guyana, Peru, and Suriname), French Guiana, as well as health and medical researchers and members of the diplomatic corps participated in the three-day meeting held in Paramaribo, Suriname.

Day One, November 11, 2014

The PAHO country representative and ambassadors of the US, Guyana, Brazil, and the overseas territories of France to Suriname made opening remarks. After a recap of the situation of artemisinin in the region by PAHO's Regional Malaria Program, Charlotte Rasmussen, a WHO representative from Geneva, presented on current artemisinin resistance containment efforts in Southeast Asia. The fact that resistant strains emerged among a relatively small number of cases in Southeast Asia indicates that resistance may be more likely to be found in low transmission areas including many parts of South America, because parasites may have to be in a higher fitness class to survive. Comments mainly centered on WHO guidelines for monitoring of delayed parasite clearance in the blood. However, Global Fund representative Matthew MacGregor inquired about AMI/RAVREDA's support of communication activities in the Guiana Shield region during the group discussion; he mentioned that Suriname's new Global Fund grant to work with miners as the main affected population will have a major communication component, and suggested that Links Media's communication work through AMI be leveraged rather than duplicated to achieve the desired behavior change objectives. Links Media encouraged this approach, and provided clarification regarding our scope of work in the public forum. We confirmed that regional and country communication strategy development is supported through AMI, noting that Links Media's work will ultimately depend on each country's decisions about the traditional or non-traditional approaches that they wish to adopt with the miners.

Suriname, Guyana, Brazil and French Guiana presented their resistance surveillance data, although not all countries presented standardized data on Day 3 parasitemia in patients who were treated with ACTs. Suriname's results showed that something

appears to be occurring with parasite sensitivity to artemisinin, however the change only exceeds the WHO threshold in terms of the longer parasite clearance half-life, and not in terms of Day 3 parasitemia. Even then, there were doubts from attendees about the parasite clearance estimator tool that was used. Serious methodological issues were noted with the study conducted in Guyana; also, results were not presented in a format that would make them comparable to the other studies in the region or to the WHO thresholds. In Brazil, routine health facility data collected at sentinel sites has been used to track Day 3 positivity; this cannot be considered a therapeutic efficacy study (TES) per se. Brazil will start a Day 3 efficacy study of arthemeter-lumefantrine according to the WHO protocol in January 2015. International partners expressed disappointment in the countries' execution of these important confirmatory studies on artemisinin resistance. Nonetheless, partners expressed continuing commitment to the idea of taking a proactive approach to artemisinin to avoid the emergence of full-fledged resistance.

PAHO/Washington consultant Trent Ruebush provided an overview of the Draft Plan for Artemisinin Resistance Containment and Elimination in South America. The plan's main suggestions included: expanding health posts in remote areas to improve gold miners' access to malaria diagnosis and treatment, training and paying a network of local residents to become disease-specific Malaria Service Deliverers (MSDs) in remote areas, training informal vendors to diagnose and treat malaria as an incentive to stop selling unregulated drugs, working with mining enterprises to provide prevention, diagnosis, and treatment to their workers, and introducing directly observed therapy to improve adherence to antimalarials. The plan also proposed the elimination of *P. falciparum* malaria wherever possible as an important component of resistance containment. Participants agreed that detailed strategies would have to be developed by individual countries according to local specificities.

Day Two, November 12, 2014

Overviews of topics as diverse as the selection of diagnostic methods, collection of epidemiological data and data quality, case management, health system supervision, and the behaviors of key populations were provided. Presentations were followed by in-depth discussions in an open forum regarding the Draft Plan for Artemisinin Resistance Containment and Elimination in South America.

WHO's Pascale Ringwald explained the most updated definition of resistance. Currently, the definition of resistance does not imply a total failure of artemisinin, but rather the delayed clearance of parasites or an observation of "partial" resistance to artemisinin. No parasite is totally resistant as yet. He noted that as new data come in, new definitions will be created. Artemisinin resistance alone could have major consequences for the treatment of severe malaria; also, the pace of parasites' acquisition of artemisinin resistance will contribute to the pace of resistance to partner drugs in ACTs. Treatment failure will not be observed unless and until parasites develop resistance to the partner drug as well as to artemisinin. Thus, a change in the Day 3 positivity rate is a warning that should lead to more sophisticated studies, such as a combination of *in vivo* and molecular studies. Signs of resistance must always be isolated from pharmaco-kinetic effects that may have caused different results (e.g. *in vivo* trials done with ACT versus artesunate in Suriname; artesunate-mefloquine is considered the best, most potent ACT combination). CDC noted that it has a method that produces K13 results in 2-3 hours; USAID is partnering with CDC to obtain blood

samples and sequence K13 in conjunction with *in vivo* trials. Difficulty in working with other entities may prompt Guiana Shield countries to turn to the CDC.

Collection and use of surveillance data was the topic of Gustavo Bretas of PAHO/Suriname's presentation. He noted that mobile telephone service is almost universally available throughout Surinamese territory, including in mining areas. This makes data collection and reporting by MSDs feasible through the use of mobile devices in the field.[1] It also helps to mitigate the lack of testing and tracking data as part of the WHO's T3 (test, treat, track) approach if countries choose to adopt alternative service delivery methods instead of expanding fixed health posts. He noted that the situation in Guyana is different; mobile phone coverage is less common in that country's mining areas. Other data collection techniques would have to be used.

Oscar Lapouble of PAHO/Brazil presented about the primary vector control strategies of LLINs and indoor residual spraying (IRS), with the former strategy considered more relevant among mining populations. This stimulated a discussion of the need to continually monitor vector behavior and consider the efficacy of LLINs as a viable malaria risk reduction strategy. Links Media and other partners guided the discussion towards the importance of considering human behavior as well, particularly where BCC is concerned. For instance, if miners working in French Guiana must hand-carry all supplies to their work sites, it might not be reasonable to try to convince them to carry their own LLINs. PAHO/Washington pointed out that the scale of mining varies, so it could be that some medium or large mining enterprises would be able to provide LLINs to their workers onsite. USAID/Peru's Jaime Chang noted that although evidence for bed nets may be lacking, LLINs could nonetheless be distributed as a communication and awareness-raising tool. Links Media challenged this viewpoint by pointing out that LLINs themselves are a commodity that requires additional messages for proper use, and as such LLIN distribution would add another layer of complexity to the communication strategy. Important diagnosis and treatment messages already proposed to miners included: 1) get malaria diagnosis, 2) use approved ACTs, and 3) always complete treatment. Sleeping under an LLIN would be an additional message about prevention; nonetheless, in discussion the group agreed that it would be important to combine approaches and use all measures possible for prevention, diagnosis and treatment.

Edgar Barillas of MSH presented the topic of antimalarial supply chain management, and PAHO/Washington consultant Trent Ruebush spoke on the topic of pharmaceutical regulation. Main points made during discussions included the MSH recommendation that AMI/RAVREDA not spend more resources that inadvertently legitimize the efficacy of unregulated ACTs such as Artecom by testing their efficacy. According to Stephen Vreden of Suriname's Foundation for Scientific Research (SWOS), studies have shown that the efficacy of the unregulated ACT Artecom is comparable to that of the regulated ACT Coartem. He suggested that communication campaigns should not seek to debunk Artecom's perceived efficacy among miners, because this differs from the experience of many miners who have used Artecom.[2] Likewise, he opined that

[1] Historically, radio has been used for weekly epidemiological reporting by health agents in Suriname's interior.

[2] One finding of the 2013 Suriname KAP study was that 85% of survey respondents who used over-the-counter medicines such as Artecom to treat malaria reported that the medicine worked well.

banning the sale of Artecom or artemisinin monotherapies would be unlikely to succeed given the current lack of government control over informal vendors and the absence of a better alternative for treating malaria patients in remote areas. Gustavo Bretas recommended the alternate approach of "flooding the market" with good quality ACTs at a comparatively lower cost as a more effective way to undercut the use of unregulated antimalarials. He said this should be complemented with health promotion to improve diagnosis seeking and completion of treatment with any ACTs that are used.

NMCP representatives from Guiana Shield countries cited policy and implementation challenges as major barriers to containing artemisinin resistance. AMI technical partners urged countries to consider the full range of possibilities and to develop non-traditional interventions where traditional approaches had failed or were not feasible. AMI technical partners also encouraged NMCPs to seek the involvement of other sectors of government in order to be able to carry out some of the alternative approaches.

Marieke Heemskerk, anthropologist and Principal Investigator on the 2013 KAP study in Suriname's mining areas, emphasized that miners are rational actors who adapt to conditions on the ground. As long as miners cannot obtain better, cheaper diagnosis and treatment in mining areas, they can be expected to continue the rational behavior of purchasing Artecom in advance. It was acknowledged that once a better alternative is provided, there should also be health communication and health promotion with miners. Links Media reinforced the socio-behavioral findings of the KAP study, and recommended that countries use the information about miners' decision-making processes to develop realistic policies and interventions.

Monique Perret-Gentil of PAHO/Washington focused on the Yanomami people in Venezuela in her presentation addressing indigenous populations. In Guiana Shield countries, 363,720 cases of malaria occurred among indigenous inhabitants from 2008-2014. The relationship is particularly significant in Venezuela's Bolívar state. Among stable indigenous communities in remote areas, the challenge is to provide primary health care on a continuous basis; language barriers and local conceptions of disease are important to consider. Links Media made the point that "mobile miners" and indigenous peoples are not mutually exclusive. Indigenous men are also involved in mining activities; mobile miners from indigenous villages in Guyana bring malaria back to stable communities. As such, there may be a need to incorporate indigenous languages and worldviews into communication work with mining populations. Gustavo Bretas of PAHO/Suriname made the point that indigenous people in Suriname and French Guiana should be understood as highly mobile and multilingual.

Day Three, November 13, 2014

Countries of the Guiana Shield as well as Ecuador and Panama noted recent progress and provided their perspectives on artemisinin resistance. The situations on the ground differ considerably from one country to another. Numerous challenges to swift implementation were highlighted, including the need to mobilize additional resources in order to improve the implementation quality of ongoing malaria control measures.

Key takeaways were presented and discussed by PAHO and other organizations' representatives:

- Data collected so far indicates no evidence of artemisinin resistance in the Guiana Shield region of South America, but a significant threat exists.

- Treatment failure with ACTs does not depend on artemisinin resistance alone; parasites' potential loss of sensitivity to partner drugs is also a component.

- South American countries need to take steps to avert a potential disaster such as that seen in Southeast Asia:

    - Better case management of malaria
    - Therapeutic efficacy studies (TES) to monitor trends in sensitivity to antimalarial drugs, along with mandatory K13 testing

- There is an urgent need for K13 results from Suriname, the processing of which has been delayed. The K13 results from Guyana and French Guiana showed that 0% of samples had K13 mutations present.

- It is important to accelerate efforts to eliminate *P. falciparum* malaria wherever possible, because the drugs used to treat this species of malaria are the ones currently threatened by resistance. However, countries can only hope to eliminate malaria after they first implement adequate control measures. Despite the difficulty given ecological factors in the Amazon basin, malaria control is possible if health systems are working adequately.

- **Messages to decision-makers: Artemisinin resistance threatens progress against malaria in the Americas region. It is important to act now to prevent resistance and avoid repeating the experience of Southeast Asia.**

Country Updates

In sideline discussions over the course of the three-day meeting, Links Media obtained additional information from countries that will help to develop and implement one or more communication components to support the regional plan to contain artemisinin resistance.

Brazil – Ongoing activities include the roll-out of an information system in malaria-endemic states with assistance from MSH; an electronic supervision tool will be finished soon and linked to the epidemiological data system. A pilot intervention is occurring at selected health units on the border with Guiana Shield countries; however, there is currently no communication component to this pilot. An MSH consultant is writing a proposal for an intervention to be done in Roraima and Pará states; overall, the strategies for these states need to be better defined. The quality of antimalarials in Brazil is being evaluated together with USP; informal antimalarials in gold mining areas will be evaluated in Pará and Amapá. LLINs have been procured for distribution on the border with Suriname. Finally, an online system is being developed for outbreak detection for each parasite species.

Regionally, a bilateral agreement has been signed with French Guiana, and another is being pursued with Suriname. Brazil and Guyana are engaged in cooperation, albeit

without a formal agreement. Finally, Brazil intends to make use of its pro-tempore presidency of MERCOSUR in the coming year in order to enlist support for regional collaboration by countries that are not currently a part of AMI, such as Venezuela.

Suriname – Regions will be certified and declared free of malaria beginning in 2015. Confirmation will be done through serological surveys. Meanwhile, a Global Fund grant to work with miners has been approved to focus on malaria in mining areas, and implementation will begin by April 2015. The amount is US$2.8 million over three years, including a considerable communication component (note however that implementation in mining regions is extremely costly). Besides the Ministry of Health, the national Malaria Board is the main institution involved in determining the direction of grant activities. Materials in Portuguese (posters and audiovisual materials) have been developed and deployed with miners in the past using Global Fund resources. Existing film content is of excellent quality and uses the theme "sexy klamboe" ("sexy bed net" in the local language) to promote proper and consistent LLIN use. This could be circulated via DVD and augmented with audio content by a Brazilian band of the popular *forró* genre (e.g. Calcinha Preta). Brazilian miners exclusively watch the international Globo TV network, so television spots are not considered cost-effective; however, cooperation with the Brazilian MOH on the production of TV and radio spots would be welcome.

French Guiana – Recently there have been a few short-term military missions (Anopheles I, Anopheles II) to test for and treat malaria in the mining areas. The military missions managed to collect some useful data that estimates malaria prevalence upwards of 30% in French Guyana's mining areas. It is estimated that 40,000 people are residing in French Guiana illegally; of them, 8,000 are thought to be involved in illegal mining activities. Brazilians in the territory illegally are currently able to obtain free diagnosis and treatment. However, a long-term model for malaria control in illicit mining areas is lacking. Meanwhile, a major disagreement between French policy and other Amazon basin countries is how to address G6PD deficiency, which is estimated at 10% in French Guiana. In addition to RDTs for confirmatory diagnosis and speciation, RDTs are needed to detect G6PD deficiency in remote areas, unless French policy about the use of primaquine changes in the near future.

Guyana – PAHO has helped the country to procure 10,000 RDTs. The Global Fund will provide a grant for their roll-out in Region 8. Links Media spoke with NMCP director Reyaud Rahman and Global Fund representatives from Geneva to learn more about this grant, and steps needed for Guyana to meet the eligibility criteria. Importantly, countries have to provide a counterpart commitment equal to 40% of grant amounts funded by the Global Fund in order to improve the chances for sustainability. A stakeholder meeting is scheduled for February 2015 as part of the Global Fund process.

Ecuador – A monitoring and evaluation (M&E) officer from the MOH's Global Fund project, Galo Acosta, was in attendance in Suriname. Ecuador's National Control Service for Vector-Borne Diseases (SNEM) is currently being absorbed by the MOH. A strategy for how this may occur is available in draft form, and Mr. Acosta agreed to share it with Links Media. We will provide the draft communication strategy that we developed with SNEM in mind; however, there is a need for alignment in light of the

MOH's new approach.

Panama – NMCP coordinator Carlos Victoria shared the weekly malaria report through the end of October 2014, showing the biggest increase in cases in the provinces of the East, Darién, and Comarca Ngobe Buglé. He also informed Links Media that the Clinton Foundation will be funding the research that is needed with indigenous peoples; we discussed the importance of this work in light of the move towards elimination and the trends that indicate the vast majority of remaining transmission has been occurring among indigenous peoples. There are plans to involve traditional healers in malaria control (or *médicos tradicionales*, in Spanish).

VI. Conclusions and Recommendations

Links Media had a fruitful exchange with AMI country representatives and international technical partners. Links Media provided valuable input about how best to approach the risk of artemisinin resistance among miners in the Guiana Shield region.

Based on the work conducted during this meeting, Links Media recommends that:

- In collaboration with Links Media, countries should consider defining the strategies they would like to pursue with the key populations of interest when it comes to malaria control and the emergence of resistance. Mobile Brazilians are the main population that needs to be reached with either traditional or non-traditional prevention, diagnosis and treatment strategies. Country-level decisions will determine the direction of communication interventions.
- Global Fund materials should be disseminated among countries and on BCC web portals, in order to leverage rather than duplicate work that has been done in the past in Brazil, Guyana, and Suriname.
- Malaria in Suriname's mining areas should be the main issue that is addressed in Links Media's country communication strategy for Suriname, given that malaria is considered non-existent in other parts of the country. The Suriname communication strategy should build on what was already submitted to the Global Fund, and should ideally be finalized with the NMCP by March 2015.
- In light of the need for the mobilization of broader support, AMI technical partners should work with ministries of health and finance, rather than exclusively with NMCPs.
- The AMI/RAVREDA Annual Evaluation Meeting to be held in Brazil in March 2015 should include breakout sessions in order to create a structured time for smaller groups to work on addressing shared issues such as malaria control among miners in the Guiana Shield.
- WHO's technical definition of "suspected partial resistance" to artemisinin should be translated for lay audiences using a similar approach to the "*plain language*"[3] model to effectively convey the urgent call to action that needs to be made to decision-makers in Guiana Shield countries. The message should be that the risk of resistance exists based on current conditions on the ground, which resemble what the conditions were like in Southeast Asia. Economic benefits (e.g. that cost avoidance is possible if the existing firstline therapies can be preserved) should be raised as a way to convince country leadership that the

[3] See: http://www.plainlanguage.gov/.

risk is high if current trends continue. Action is needed now to prevent treatment failures and avert a public health disaster.

Annex 1
Event Agenda

Follow-up Meeting for the Guyana Shield and
Consultations on the draft Plan for Artemisinin Resistance Containment and Elimination in South America
11-13 November 2014
Paramaribo, Suriname

Objectives:

- Discuss updates from the WHO Drug Resistance and Containment Technical Expert Group (TEG)
- Discuss the results / updates from the ongoing therapeutic efficacy trials in Guyana and Suriname and other activities proposed during previous Guiana Shield meetings;
- Discuss options for mitigating key challenges that contribute to the development of artemisinin resistance;
- Obtain country and stakeholder feedback on the draft strategic document Plan for Artemisinin Resistance Containment and Elimination in South America.
- Discuss corresponding roles and commitments of countries and stakeholders in implementing the Plan for Artemisinin Resistance Containment and Elimination in South America

Day 1 – 11 November (Tuesday)

Moderator:	**Gustavo Bretas, PAHO**	
09:00 – 9:30a.m.	Registration	
9:30 – 09:45a.m.	Welcome / Opening	**Francoise Barten, PAHO-SUR; MOH-SUR; Diplomatic Missions**
09:45 – 10:20 a.m.	Agenda Overview / Introduction of Participants Malaria in the Americas and the Evolving Threat of Artemisinin Resistance in the Guyana Shield	**Keith Carter, PAHO**
10:20 – 11:00 a.m.	Updates on Artemisinin Resistance: Current situation and Containment Efforts (20 mins. presentation; 20 mins. discussion)	**Charlotte Rasmussen, WHO-GMP**
11:00 – 11:30 a.m.	Coffee Break	
11:30 – 12:00 p.m.	Results: Confirmatory studies in Suriname (including K-13) (15 mins. presentation; 15 mins. discussion)	**Stephen Vreden / Malti Adhin (SUR)**
12:00 – 12:30 p.m.	Results: Confirmatory studies in Guyana (including K-13) (15 mins. presentation; 15 mins. discussion)	**Reyaud Rahman / Keith Moore / Supatra Abraham (GUY)**
12:30 – 01:00 p.m.	Updates regarding TES and Efforts implemented to prevent Artemisinin Resistance in Brazil (15 mins. presentation; 15 mins. discussion)	**Camila Damasceno / Liana Blume (BRA)**
01:00 – 2:00 p.m.	Lunch	
Moderator:	**Meera Venkatesan, USAID**	
2:00 – 2:30 p.m..	Updates regarding TES and Efforts implemented to prevent Artemisinin Resistance in French Guiana (15 mins. presentation; 15 mins. discussion)	**TBD (FGU)**

2:30 – 3:00 p.m.	Updates regarding TES and Efforts implemented to prevent Artemisinin Resistance in Venezuela (15 mins. presentation; 15 mins. discussion)	**TBD (VEN)**
3:00 – 3:30 p.m.	Updates on Implementation of other Relevant Measures (through AMI/RAVREDA) (15 mins. presentation;15 mins. discussion)	**Nicolas Ceron, PAHO**
3:30 – 4:00 p.m.	Coffee Break	
4:00 – 4:30 p.m.	Malaria Epidemiology in an Illegal Gold Mining camp in French Guiana. (15 mins presentation; 15 mins. discussion)	**Army Health Services, French Guiana**
4:30 – 5:30 p.m.	Overview: Draft Plan for Artemisinin Resistance Containment and Elimination in South America (20 mins presentation; 40 mins. discussion)	**Trenton Ruebush, PAHO**

Day 2 – 12 November (Wednesday)

Moderator:	**Jaime Chang, USAID**	
09:00 – 9:40a.m.	Artemisinin Resistance: Updated Definitions and Implications on Anti-malaria Drug Resistance Surveillance and Global Containment Efforts (20 mins. presentation; 20 mins. discussion)	**Pascal Ringwald, WHO-GMP**
9:40 – 10:10 a.m.	Issues, Challenges and Strategic Approaches on Case Detection and Treatment of Malaria (10 mins presentation; 20 mins. discussion)	**Alexandre Macedo, CDC**
10:10 – 10:40 a.m.	Issues, Challenges and Strategic Approaches on Collection and use of Surveillance Data (10 mins presentation; 20 mins. discussion)	**Gustavo Bretas, PAHO**
10:40 – 11:10 p.m.	Coffee Break	
11:10 – 11:40 p.m.	Issues, Challenges and Strategic Approaches on Monitoring Antimalarial Therapeutic Efficacy (10 mins presentation; 20 mins. discussion)	**Lise Musset, IP-Cayenne**
11:40 – 12:10 p.m.	Issues, Challenges and Strategic Approaches on Vector Control (10 mins presentation; 20 mins. discussion)	**Oscar Lapouble, PAHO**
12:10 – 12:50 p.m.	Issues, Challenges and Strategic Approaches on Supply Chain Management (10 mins presentation; 20 mins. discussion)	**Edgar Barillas, MSH**
12:50 – 2:00 p.m.	Lunch	
Moderator:	**Laure Garancher, PAHO-CPC**	
02:00 – 02:30 p.m.	Issues, Challenges and Strategic Approaches on Strengthening Pharmaceutical Regulation for Antimalarials (10 mins presentation; 20 mins. discussion)	**Trenton Ruebush, PAHO**

02:30 – 03:00 p.m.	Issues, Challenges and Strategic Approaches on Engaging the Mining Sector (10 mins presentation; 20 mins. discussion)	**Marieke Heemskerk, SUR**
3:30 – 4:00 p.m.	Issues, Challenges and Strategic Approaches on Engaging Indigenous Populations (10 mins presentation; 20 mins. discussion	**TBD** > Dr. Monique Perret-Gentil
4:00 – 4:30 p.m.	Coffee Break	
4:30 – 5:00 p.m.	Issues, Challenges and Strategic Approaches on Program Coordination and Management (10 mins presentation; 20 mins. discussion)	**TBD** > Dr. Keith Carter
5:00 – 5:30 p.m.	Issues, Challenges and Strategic Approaches on Staff Peformance Supervision (10 mins presentation; 20 mins. discussion)	**Edgar Barillas, MSH**

Day 3 – 13 November (Thursday)

Moderator:	**Matthew MacGregor, Global Fund**	
09:00 – 09:30 a.m.	Synthesis of Day 2 Discussions on Issues, Challenges and Strategic Approaches	**Oscar Galan, PAHO**
9:30 – 10:00 a.m.	Issues, Challenges and Strategic Approaches On Building Political Support and Addressing Funding Gaps (10 mins presentation; 20 mins. discussion)	**Rainier P. Escalada, PAHO**
10:00 – 10:30 a.m.	Knowledge Gaps, Research Priorities and New Tools / Innovation (10 mins presentation; 20 mins. discussion)	**Monique Perret-Gentil, PAHO**
10:30 – 11:00 a.m.	Comments / Perspectives from Countries (10 mins. each)	**BRA; FGU: GUY**
11:00 – 11:30 a.m.	Coffee Break	
11:30 – 12:40 p.m.	Comments / Perspectives from Countries (10 mins. each)	**SUR, VEN; BOL, COL, ECU, PER, PAN**
12:40 – 2:00 p.m.	Lunch	
Moderator:	**Oscar Lapouble, PAHO-BRA**	
02:30 – 4:00 p.m.	Comments / Perspectives from Partner Agencies / Sector Representatives (10 mins. each)	**Bill and Melinda Gates Foundation; CDC Global Fund; USAID; Sector Representatives (i.e. Mining, Military, Research / Academe, etc.)**
4:00 – 4:30 p.m.	Coffee Break	
4:30 – 5:15 p.m.	Next Steps / Conclusions	**Keith Carter, PAHO**
5:15 - 5:30	Closing	**WHO-GMP; MOH-SUR; PAHO-SUR**

Annex 2
Request for Country Clearance

From: New, Lorenzo B (Paramaribo) [NewLB@state.gov]
Sent: Fri 11/7/2014 9:04 AM
To: jdecarvalho@linksmedia.net
Cc: Chang, Jaime (PERU/HEO); deRandamie, Astrid I (Paramaribo)
Subject: RE: Request for Action - Electronic Country Clearance (eCC)

Julie,

We concur with your travel to Suriname next week. See you then.

Regards,

Lorenzo

This email is UNCLASSIFIED.

From: Julie de Carvalho [mailto:jdecarvalho@linksmedia.net]
Sent: Thursday, November 06, 2014 11:50 AM
To: New, Lorenzo B (Paramaribo)
Cc: Chang, Jaime (PERU/HEO)
Subject: RE: Request for Action - Electronic Country Clearance (eCC)

Greetings Mr. New,

I am writing to close the loop on this request from Monday. Can you confirm that the U.S. Embassy concurs with my travel to Suriname next week? I apologize for any redundancy in case you have already replied directly to Dr. Chang of USAID/Peru.

Best regards,

Julie

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Creating a Culture of Learning

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From: New, Lorenzo B (Paramaribo) [mailto:NewLB@state.gov]
Sent: Monday, November 03, 2014 1:52 PM
To: Julie de Carvalho
Cc: Chang, Jaime (PERU/HEO); Brian Kubiak; Linksg
Subject: RE: Request for Action - Electronic Country Clearance (eCC)

Yes, USAID/Peru may make the entry on your behalf. No worries.

Thanks,

Lorenzo

This email is UNCLASSIFIED.

From: Julie de Carvalho [mailto:jdecarvalho@linksmedia.net]
Sent: Monday, November 03, 2014 3:33 PM
To: New, Lorenzo B (Paramaribo)
Cc: Chang, Jaime (PERU/HEO); 'Brian Kubiak'; 'Linksg'
Subject: RE: Request for Action - Electronic Country Clearance (eCC)

Dear Mr. New,

Thanks for your prompt reply. No, as contractor staff I am unable to make an entry at ecc.state.gov. It is possible that someone at USAID/Peru may be able to make the entry on my behalf, and I will check on that. However, if that fails, we have sometimes been able to obtain USAID mission or U.S. Embassy approval of these requests via email.

Kind regards,

Julie

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From: New, Lorenzo B (Paramaribo) [mailto:NewLB@state.gov]
Sent: Monday, November 03, 2014 1:27 PM
To: Julie de Carvalho
Cc: Chang, Jaime (PERU/HEO); Brian Kubiak; Linksg
Subject: RE: Request for Action - Electronic Country Clearance (eCC)

Ms. de Varvalho,

Thank you for forwarding your information. Did you make an entry at ecc.state.gov? I'll need to approve your request there.

Thanks,

Lorenzo

This email is UNCLASSIFIED.

From: Julie de Carvalho [mailto:jdecarvalho@linksmedia.net]
Sent: Monday, November 03, 2014 12:58 PM
To: New, Lorenzo B (Paramaribo)
Cc: Chang, Jaime (PERU/HEO); 'Brian Kubiak'; 'Linksg'
Subject: Request for Action - Electronic Country Clearance (eCC)
Importance: High

Dear Mr. New:

This e-mail is to request country clearance for Ms. Julie de Carvalho, Senior Project Manager. Ms. de Carvalho will be traveling to Paramaribo, Suriname on or about November 11 – 13, 2014 on behalf of Links Media, which is the USAID implementing partner for the communication component of the Amazon Malaria Initiative (AMI).

The purpose of Ms. de Carvalho's visit will be to participate in the "Follow-up Meeting for the Guiana Shield and Consultations on the Draft Plan for Artemisinin Resistance Containment and Elimination in South America," organized by the Pan American Health Organization and with support from the Drug Resistance and Containment Unit of the WHO Global Malaria Programme (GMP).

Attached you will find the completed eCC form. This activity has received concurrence from the USAID/Peru Contracting Officer Representative (COR), Dr. Jaime Chang. Costs incurred under this activity have been budgeted under the project.

Your prompt action is kindly requested.

Sincerely,

Julie N. de Carvalho, MPH

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www.linksmedia.net

From: Jaime Chang [jachang@usaid.gov]
Sent: Thu 10/23/2014 1:04 PM
To: Julie de Carvalho [jdecarvalho@linksmedia.net]
Subject: Re: FW: Invitation-Follow-up Meeting for the Guiana Shield and Consultations on the draft Plan for Artermisinin Resistance Containment in South America (Paramaribo, 11-13 Nov. 2014)

Dear Julie,

Please plan to attend this meeting.

Jaime

Annex 3
Selected Photographs

Links Media participates in Paramaribo meeting with other AMI technical and country partner representatives.

Anthropologist Marieke Heemskerk of Social Solutions presents finding of KAP study in Suriname's mining areas.

Amazon Malaria Initiative (AMI) Consultation Meeting

Iquitos and Lima, Peru
March 1–7, 2015

Communication Component of the Amazon Malaria Initiative (AMI)

Trip Report

Links Media, LLC
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Submitted by
Ricardo Echalar
April 2015

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About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

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Abbreviations and Acronyms

AMI	Amazon Malaria Initiative
BCC	Behavior Change Communication
CDC	US Centers for Disease Control and Prevention
DIRESA	Regional Health Directorate
ESNM	National Strategy for Vector-Borne Diseases
IEC	Information, Education, and Communication
INS	National Institute for Health
MINSA	Ministry of Public Health
MSH	Management Sciences for Health
NAMRU	Naval Medical Research Unit
PAHO/WHO	Pan American Health Organization
PAMAFRO	Malaria Control Program in Andean-country Border Regions
PQM	Promoting the Quality of Medicine Program
RBM	Roll Back Malaria
SBCC	Social and Behavior Change Communication
SIAPS	USAID Systems for Improved Access to Pharmaceuticals and Services
TA	Technical Assistance
USAID	US Agency for International Development
USP	US Pharmacopeial Convention

I. Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to, and quality of, malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (the AMI technical partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health and national malaria control programs grouped in the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise through South-South collaboration promoted and supported by AMI. Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance (TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

II. Purpose of the Trip

On March 1–7, 2015, Mr. Ricardo Echalar, Technical Coordinator/Deputy Project Manager of Links Media traveled to Iquitos, Peru (March 1–5) and Lima, Peru (March 5–7) to participate in the Amazon Malaria Initiative (AMI) Consultation Meeting in response to the ongoing health emergency due to malaria in the region of Loreto. The consultation meeting was convened by the Pan American Health Organization (PAHO/WHO) at the request of the Ministry of Public Health's (MINSA) National Strategy for Vector-Borne Diseases (ESNM) division.

Links Media attended this meeting as the communication technical partner under AMI, in order to provide input on communication and advocacy. Special circumstances brought AMI partners together to provide guidance to actors at the national, regional, and local levels in response to the malaria outbreak in Loreto, where the number of cases has increased significantly since 2010.

III. Scope of Work

The scope of work for Links Media included the following specific activities:

- Serve as technical advisor for communication as part of the AMI delegation traveling to Iquitos, Peru in response to the increasing incidence of malaria in Loreto
- Work with national and local health authorities to identify recommendations and actions in response to the situation in Loreto
- Share findings from the assessment phase of the development of the communication strategy with Ministry of Health (MOH) malaria actors and gather feedback

IV. Source of Funding for the Trip

This trip was supported through funds budgeted from the USAID/Peru contract (No. AID-527-C-13-00004) with Links Media for the Communication Component of the Amazon Malaria Initiative (AMI).

V. Trip Activities

The main activity for this trip was to attend and participate in the consultation meeting in Iquitos, Peru and subsequently attend and participate in the consultation and debriefing meeting at the Pan American Health Organization (PAHO/WHO) office in Lima, Peru.

The Iquitos consultation meeting occurred over 3.5 days (March 2–5) at the Victoria Regia Hotel. The meeting had approximately 60 participants (See Annex 2). Participants represented various sectors including both national and local health authorities, such as the Regional Health Directorate of Loreto (DIRESA Loreto), Civil Society Organizations (CSOs) and Non-Governmental Organizations (NGOs), higher education institutions, private sector such as PlusPetrol, and other governmental ministries including, education, agriculture, transportation, and tourism. The meeting was convened by the PAHO/Peru country office on behalf of the National Strategy for Vector-Borne Diseases (ESNM), which requested the visit at the September 2014 AMI Steering Committee Meeting in Washington, DC.

The first day and a half brought together multi-sectoral partners from the central level (Lima), regional level (Iquitos) and from local communities within Loreto to address key issues. Many of these partners were mainly embedded within the communities and had built trust with the communities, including faith-based organizations and NGOs. These partners were convened to bring different perspectives of the ongoing increase in malaria in Loreto. Three questions were asked of each working group: what was the actual vs. perception of risk due to malaria, what were the key determinants for the resurgence of malaria, and what were the possible linkages for the current situation. Many of the participants viewed malaria as a serious situation, but stated that within the communities although people knew about malaria they did not perceive it to be an area of concern.

A participant from the education sector indicated that many of the students in her community suffered from malaria during the school year. As a result, they are often delayed in their education and/or eventually leave school. This has negative ramifications for the overall economic development of the community, as there are fewer educated and trained individuals.

From the private sector, a medical doctor from an energy company, PlusPetrol, discussed the issues that his company experiences as a result of malaria. One key issue was productivity loss due to malaria as a result of sick employees. By far, malaria caused more lost productivity than any other illness or work-relayed injury. In addition, the cost for evacuating these sick individuals for treatment created additional costs to the company.

An additional challenge pertains to the geographic size of Loreto and the difficulty in getting to different communities due to the difficult terrain. Many of the remote communities are only accessible by boat, and even that mode of transportation can vary during wet and dry seasons. Individuals are not able to receive timely diagnosis and treatment, and this allows the parasite to spread further within communities.

Many of the local participants identified a lack of resources as the main cause of malaria resurgence, including the lack of financial assistance and commitment from the central level. This was especially highlighted upon the conclusion of the Global Fund Malaria Control Program in Andean-country Border Regions (PAMAFRO) that ended in 2010, which coincided with the resurgence of malaria cases.

The local organizations were critical of how effective the MOH health brigades were in providing adequate care to the at-risk communities. Many viewed the brigades as temporary stop-gap measures that did not have lasting beneficial effects within the community. They urged the MOH to provide teams that are more culturally sensitive to the populations within Loreto, which might be dedicated to these communities over the long-term.

Finally, many participants believed that there was a lack of leadership at all levels to champion the efforts. Without this leadership, there was a dissonance between the central and regional levels, which has been exacerbated through the decentralization process (the region is responsible for determining its own priority areas and activities for implementation).

During the consultation meeting in Iquitos, Links Media was able to speak with Ms. Teresa de Jesus Benites, who is a nurse by training and the head of the regional unit for health promotion. She provided a better overview of communication activities and told Links Media that the biggest need is to help community health workers responsible for communication and outreach in how to be effective advocates for malaria prevention and control. These individuals are responsible for working with municipal mayors, other sector leaders, and community leaders to reach an agreement with the malaria and other vector-borne disease work. However, many have community health workers no formal training in this type of work and are trained in specific technical areas only. Those that are effective in advocating for this work have been working in the communication and advocacy for several years.

The workshop transitioned to an internal meeting during the afternoon of the second day with only the AMI representatives, along with the national and local health authorities. For the next

two and half days, the group reviewed the 2015 regional work plan and budget for Loreto, which was submitted to the Ministry of Health. Each topic area was reviewed and received comments from the participants. Unfortunately, this part of the consultation meeting became difficult very quickly. What had been a good open discussion previously suddenly turned defensive, with participants questioning the purpose of the meeting. This part of the meeting was all in plenary in a very public forum. The head of the vector-borne disease unit from MINSA was especially critical of how the meeting transitioned, as he thought it was inappropriate to critique the plans and that was not the original intention.

The proposed budget for the 2015 Prevention and Control Plan for Vector-Borne Diseases in the Loreto Region is S/. 32,972,838 (approximately USD 10,000,000). There are six specific objectives of this work plan, including the following with budget breakdown by line item:

a) Monitoring, supervision and evaluation of the regional program for vector-borne disease control in the Loreto region (S/. 6,899,438)
b) Epidemiological surveillance in transmission areas and in areas of high risk for vector-borne disease in the Loreto region (S/. 289,540)
c) Integrated vector control against vector-borne diseases in the Loreto Region (S/. 9,872,586)
d) Detection, Diagnosis, Treatment, and Follow-up of persons infected with vector-borne diseases in the Loreto region (S/. 12,836.450)
e) Citizen participation in the prevention and control of vector-borne diseases in the Loreto Region (S/. 2,047,993)
f) Effective communication for the prevention and control of vector-borne diseases in the Loreto Region (S/. 1,026,830)

After three and half days of the workshop a list of recommendations were to be presented to the MOH in Lima. Recommendations were developed for 10 areas, including the six areas that were line-items under this year's budget including communication and community participation.

With regard to communication, these were the overall recommendations:

- Strengthen communication between the public sector, private sector, NGOs and other actors in order to establish more effective interventions
- Improve and strengthen alliances with the media and journalists to help improve communication with communities in the region
- Create and implement a specific communication strategy for vector-borne diseases targeting various audiences
- Design communication products that target decision-makers at both the regional and central levels who determine operations budgets

With regard to community participation these were the overall recommendations:

- Conduct a stakeholder mapping activity that identifies all individuals and institutions that are involved in these efforts locally
- Strengthen relations with the private sector to improve intervention coverage and to share duties for the prevention and control of malaria

- Conduct capacity strengthening for health personnel in the area of advocacy when working with local leaders and other influential individuals
- Design strategies to strengthen the role of community health workers over the long-term

On the final day of the visit, the AMI representatives met at the PAHO/Peru office in Lima. Originally, this day had been scheduled to include a debriefing with MOH officials in Lima to discuss the meeting in Loreto and recommendations in responding to the ongoing malaria situation. However, that meeting was canceled and the AMI delegation met to briefly discuss the situation in Loreto and to finalize the agenda and details for the upcoming AMI Evaluation and Steering Committee meetings in Rio de Janeiro, Brazil.

VI. Conclusions and Recommendations

Links Media found the overall trip to be beneficial in that greater knowledge was obtained about the current malaria situation in Peru, specifically in Loreto. In addition, Links Media was able to share some of its initial findings from the assessment phase, and the feedback provided from local informants will help in the completion of the country communication strategy. Conversations and presentations from the various actors provided better context and helped identify communication areas that need strengthening in response to the increase in malaria. Following the meeting in Iquitos, the briefing planned with the MOH in Lima did not materialize. It remains important to share the findings and recommendations from the Iquitos meeting with MOH officials in order to inform next steps to be taken in response to the malaria situation in Loreto.

Based on the information gathered and proceedings of the working meeting, Links Media recommends the following:

- Community health workers in Loreto that conduct health promotion activities at the household level, especially in remote areas, need additional support and training. This may include how to collaborate and communicate with non-Spanish speaking communities and people with low or no literacy.
- Provide support in identifying and disseminating priority communication activities in response to the increase in malaria in Loreto based on feasibility and resources available.
- Provide communication and advocacy training to DIRESA Loreto health workers that provide outreach activities, helping provide tools to better communicate and advocate for community participation in malaria prevention and control efforts.
- As part of the country communication strategy for malaria, provide guidance that the MOH and DIRESA Loreto can use for outreach to health organization and professionals that are embedded with the at-risk populations in Loreto and improve coordination and relations among all actors.

Annex 1: Draft Workshop Agenda

Reunión de la Iniciativa Amazónica contra la Malaria (AMI)
02-06 marzo 2015 - Iquitos, Loreto, Peru
Antecedentes

Entre los años 2010 y 2014, mientras el número de casos de malaria reportado por la Región Loreto se incrementó de 11,509 a 59,981, la contribución de la región al total de casos registrados en el Perú se incrementó de 39% a 93%. En este marco, el Ministerio de Salud del Perú expresó su interés en enfocar en la Región Loreto la asistencia técnica recibida a través de la Iniciativa Amazónica contra la Malaria (AMI) así como la colaboración técnica de la OPS correspondiente a la prevención y control de la malaria.

De esta manera, se pretende colaborar en el relanzamiento de los esfuerzos nacionales y regionales para la prevención, control y diagnóstico de la Malaria, empezando por la elaboración de una estrategia para la malaria en la región basada en la evaluación de la situación de la malaria en Loreto, que no se limite a los elementos tradicionalmente abordados desde la perspectiva sanitaria, como (diagnóstico y tratamiento de calidad, calidad de los medicamentos, promoción de la salud en el marco de prevención de malaria y el manejo integrado de vectores).

Para lograrlo sugiere llevar a cabo una caracterización sistémica socio-ecológica de la situación de la malaria en Loreto que permita identificar, desde la perspectiva de los representantes de otros sectores de gobierno (p.ej. Educación, Turismo, Economía), económicos/productivos (petroleros, empresarios de turismo y transportes), de la población (comunidades nativas, otros), academia (formadores de profesionales y técnicos en salud), de los institutos de investigación (en salud y otros temas), de las ONG, de las iglesias o centros religiosos; etc., los siguientes elementos:

1) Cuáles son los factores determinantes de la situación actual de Loreto respecto a la malaria,
2) En qué modo cada uno de esos sectores y actores está relacionado con la malaria y su persistencia,
3) De qué manera cada uno de estos actores puede contribuir a mejorar la situación de la malaria en Loreto

Objetivos de la reunión

El objetivo de la reunión es contribuir a la generación de un debate multisectorial en el que los actores no tradicionales en el control de malaria estén vinculados, se apropien de la problemática y contribuyan a la búsqueda y aplicación de soluciones factibles.

Resultados esperados

Los resultados esperados son los siguientes:

1) Elaboración de un Mapa de Actores
2) Obtención de un Mapa de Alcances (“outcome mapping”)
3) Identificación de lineamientos por sectores para enfrentar la reemergencia de malaria en Loreto,
4) Generación de recomendaciones para enfrentar la reemergencia de malaria en Loreto,
5) Revisión del plan de trabajo AMI/RAVREDA Perú 2014-2015 para modificación según hallazgos

Propuesta de Agenda

FECHA/HORA	TEMA	PRESENTADOR/FACILITADOR	COMENTARIOS
Lunes 02 de marzo - IQUITOS			
13.30-14.00	Apertura (Objetivo de la reunión y estructura de la agenda)	- Presidente Regional Loreto - Director Regional en Salud Loreto - Oficial de OPS	Participación de los diferentes sectores involucrados (Salud, Educación, Turismo, Economía, petroleros, empresarios de turismo y transportes, comunidades nativas, otros), academia (formadores de profesionales y técnicos en salud), de los institutos de investigación (en salud y otros temas), de las ONG, de las iglesias o centros religiosos; [grupo ampliado]
14.00-15.30	Contexto Malaria: - Breve descripción de la enfermedad a nivel de la Región de las Américas - Situación en Loreto y evolución - Plan de Control de Malaria DIRESA LORETO/MINSA, participación del Proyecto AMI	- Maria-Paz Ade y Torrent - Director Regional en Salud de Loreto - Jorge Escobedo	
15.30-16.00	***Coffee Break***		
16.00-17.30	Grupos de trabajo (3): 1) Percepción de la situación/riesgo de malaria en Loreto 2) Percepción de los determinantes asociados a la persistencia/reemergencia de malaria 3) Identificación de los niveles de vinculación con la problemática	- Facilitador 1 (Jaime Chang) - Facilitador 2 (Ana Rivière Cinnamond) - Facilitador 3 (Jorge Escobedo)	
17.30-18.00	Discusión facilitada	- Alain Santandreu	
18.00-18.15	Cierre de sesión	- Maria-Paz Ade y Torrent	
Martes 03 de marzo – IQUITOS			
08.30-09.00	Apertura:	- Jaime Chang	

	Resumen de los resultados de la sesión anterior		Participación de representantes del [grupo ampliado]
09.00-10.30	Grupo de trabajo y plenaria: Construcción de un Mapa de Actores organizado por tipo de actor, tupo y sentido de las relaciones y capacidad de lograr cambios	- Alain Santandreu	
10.30-11.00	***Coffee Break***		
11.00-13.30	Grupo de trabajo: Discusión para la identificación de alternativas y vacíos por sectores - Percepción de riesgo - Percepción sobre las principales determinantes - Identificación de la acciones realizadas - Valoración de la efectividad de las acciones realizadas	- Alain Santandreu	Esta jornada tiene como objetivo debatir los resultaos de la sesión del día 1 con los especialistas y expertos [grupo ampliado]
13.30-14.30	***Almuerzo***		
14.30-16.30	Grupo de trabajo: Identificación de lineamientos de alternativas y vacíos intersectoriales	- Alain Santandreu	
16.30-17.00	***Coffee Break***		
17.00-18.00	Plenaria: Discusión de los resultados e inclusión de sugerencias por parte de los expertos	- Alain Santandreu - Expertos	
20.30	***Actividad de camaradería: Cena en Restaurante "Al Frío y Al Fuego"***		

Miércoles 04 de marzo – IQUITOS			
08.30-09.00	Apertura: Resumen de los resultados de la sesión anterior	- Ana Rivière Cinnamond	
09.00-10.30	Grupo de trabajo: Elaboración de recomendaciones para el abordaje intersectorial, con base a los lineamientos identificados	- Alain Santandreu	
10.30-11.00	***Coffee break***		
11.00-13.30	Discusión: Socialización de las recomendaciones desde una perspectiva intersectorial para retroalimentación	- Alain Santandreu	
13.30-14.30	***Almuerzo***		
14.30-16.30	Grupo de trabajo y plenaria: Elaboración de los ejes y principales acciones intersectoriales para una Estrategia que permita enfrentar la remergencia de malaria en la región Presentacion de los logros de AMI y la inserción de AMI en el plan elaborado con la DIRESA y la Estrategia Nacional	- Alain Santandreu - Jorge Escobedo	
16.30-17.00	***Coffee break***		
17.00-18.00	Conclusiones y cierre de sesión		

Jueves 05 de marzo – IQUITOS – LIMA			
08.30-08.45	Apertura: Resumen del día anterior		
08.45-11.45	Grupo de trabajo: Recomendaciones para el trabajo conjunto DIRESA/ESTRATEGIA/OPS a fin de enfrentar la remergencia de malaria en la región y discusión de documento final de Estrategia a presentar al MINSA		
11.45-12.00	Cierre del taller	- Presidente Regional Loreto - Director Regional en Salud Loreto - Director Estrategia Nacional de Metaxénicas - Oficial de OPS	
12.00-12.30	***Coffee break***		
	Viaje a Lima		

Viernes 06 de marzo – LIMA			
08.00	Llegada al Ministerio de Salud y registro de participantes	MINSA?? (Lugar a definir)	
08.00-09.00	Palabras de apertura	- Ministro de Salud - Vice-ministro de Salud Pública - Representante de la OPS	
09.00-10.00	Presentación de los resultados plan conjunto y la inserción de AMI en el mismo: "Estrategia para enfrentar la remergencia de malaria en Loreto"	- Jorge Escobedo	
10.00-12.00	Discusión/comentarios/plenaria	Facilitador (TDB)	
12.00-12.30	Cierre de la sesión	- Ministro de Salud - Vice-ministro de Salud Pública - Representante de la OPS	

Annex 2: Participants List

Reunión de la Iniciativa Amazónica para el control de la Malaria (AMI)
Iquitos, 02 al 05 de marzo 2015

	Participante	Institución	correo 1	correo 2
1	Alejandro Dominguez	Mesa de concentración de Lucha contra la Pobreza	**no indicó correo**	
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Annex 3: Select Photographs

Photo 1: Day 1 – Working Groups

Photo 2: Schematic of Day 1 Working Group Discussions

Photo 3: Day 2 - Small Group Discussion

Annex 4: USAID COR Concurrence/Country Clearance

Subject: Re: Action Requested: Travel Concurrence - Echalar, Ricardo to Peru (March 1 - 7, 2015)
Date: Monday, February 9, 2015 at 11:09:25 AM Eastern Standard Time
From: Jaime Chang
To: Ricardo Echalar
CC: Julie de Carvalho, Brian

Dear Ricardo,

I concur with the proposed trip to Iquitos and Lima, Peru, to participate in the AMI working visit aiming to contribute with Loreto Regional Health Authorities to develop a strategy to respond to malaria re-emergence in that Peruvian region.

Cordially,

Jaime Chang

On Wed, Feb 4, 2015 at 10:24 AM, Ricardo Echalar <rechalar@linksmedia.net> wrote:

> Dear Jaime,
>
> This e-mail is to obtain travel concurrence for Mr. Ricardo Echalar, Links Media's Technical Coordinator/Deputy Project Manager for the Communication Component of the Amazon Malaria Initiative (AMI). Mr. Echalar will be traveling to Peru (Iquitos and Lima) on/about March 1 - 7, 2015.
>
> Mr. Echalar will be traveling to provide the following Technical Assistance (TA).
>
> 1) Serve as technical advisor for communication as part of the AMI delegation traveling to Iquitos, Peru in response to the on-going malaria outbreak in Loreto.
>
> 2) Work with National and Local health authorities to identify recommendations and actions in response to the malaria outbreak in Loreto.
>
> 3) Share a draft communication strategy with Ministry of Health malaria actors and gather feedback.
>
> This activity will be covered by Links Media using AMI funding which has been budgeted for FY15.
>
> Thank you for your action and support.
>
> Sincerely,
>
> Ricardo
>
> _ _ _ _
>
> Ricardo Echalar, MPH | Technical Coordinator/Deputy Project Manager
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Regional Malaria Partners Meeting, the Amazon Malaria Initiative (AMI)/Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) XIV Annual Evaluation Meeting, and the AMI/RAVREDA XVII Steering Committee Meeting

Rio de Janeiro, Brazil
March 23–27, 2015

Communication Component of the Amazon Malaria Initiative (AMI)

Trip Report

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About Links Media

Links Media, LLC is a management consulting company based in the Washington D.C. metropolitan area, specializing in information technology and marketing communications. We provide advanced management consultation services to governments and private sector clients in the areas of health, environment, science and technology, biotechnology, governance, human rights, economic prosperity, conflict resolution, education, public engagement, risk and crisis management, and social entrepreneurship.

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Abbreviations and Acronyms

AMI	Amazon Malaria Initiative
CDC	US Centers for Disease Control and Prevention
CHAI	Clinton Health Access Initiative
COMISCA	Council of Ministers of Health of Central America and the Dominican Republic
EMMIE	Initiative for the Elimination of Malaria in Mesoamerica and the Island of Hispaniola
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GMP	Global Malaria Program
HaMEC	Haiti Malaria Elimination Consortium
ICEMR	International Centers of Excellence for Malaria Research
IEC	Information, Education, and Communication
ISGlobal	Barcelona Institute for Global Health
MCR	Regional Coordinating Mechanism
MOH	Ministry of Health
MS	Brazilian Ministry of Health
MSH	Management Sciences for Health
NMCP	National Malaria Control Program
PAHO	Pan American Health Organization
PMI	President's Malaria Initiative
PQM	Promoting the Quality of Medicine Program
RAVREDA	Amazon Network for the Surveillance of Antimalarial Drug Resistance
RBM	Roll Back Malaria
SBCC	Social and Behavior Change Communication
SIAPS	USAID-Funded Systems for Improved Access to Pharmaceuticals and Services
TA	Technical Assistance
TAG	Technical Advisory Group
USAID	US Agency for International Development
USP	US Pharmacopeial Convention
WHO	World Health Organization

I. Background

The United States Agency for International Development (USAID) launched the Amazon Malaria Initiative (AMI) in 2001 to improve the prevention and control of malaria in partner nations of the Amazon basin. The initiative's mission is to (i) ensure that national malaria control programs in the Amazon basin and selected Central American countries substantially incorporate best practices and (ii) promote evidence-based policy changes in the partner countries. From inception, AMI has maintained a comprehensive view of malaria prevention and control. Its initial focus was to build the evidence base to support the introduction of artemisinin-based combination therapy (ACT) for *P. falciparum* malaria in all Amazon basin countries, and to improve access to, and quality of, malaria diagnosis. As progress was made in introducing ACT, the areas of epidemiological surveillance, vector control, and systems strengthening received further attention.

USAID established AMI as a collaborative partnership among organizations (the AMI technical partners) that provide technical and scientific expertise and collaborate with the nations' ministries of health and national malaria control programs grouped in the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) to proactively address malaria prevention and control in a sustainable manner. The partner countries also collaborate with one another and maintain an ongoing exchange of information and expertise through South-South collaboration promoted and supported by AMI. Countries currently supported by AMI include Belize, Brazil, Colombia, Ecuador, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, and Suriname.

The initiative's regional approach benefits partner countries through (i) training and technical assistance (TA), (ii) the development of standardized guidelines and protocols, (iii) the comparability of research and monitoring results within and across countries, and (iv) coordinated approaches to addressing shared problems.

II. Purpose of the Trip

From March 23–27, 2015, Ms. Julie de Carvalho, Senior Project Manager, Ms. Marisabel Sánchez, Senior Communication Advisor, and Mr. Ricardo Echalar, Technical Coordinator/Deputy Project Manager of Links Media participated in the Regional Malaria Partners Meeting, the Amazon Malaria Initiative (AMI)/Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA) XIV Annual Evaluation Meeting, and the AMI/RAVREDA XVII Semi-Annual Steering Committee Meeting in Rio de Janeiro, Brazil. Meetings were convened by the Pan American Health Organization (PAHO), and hosted by the Brazilian Ministry of Health (MS).

Links Media attended meetings as the communication technical partner under AMI, in order to provide input on communication and advocacy activities within the region of the Americas and to present achievements and findings since the last Annual Evaluation Meeting. These meetings brought together all of the AMI/RAVREDA technical partners, including PAHO/WHO, the US Centers for Disease Control and Prevention (CDC), the Promoting the Quality of Medicine Program (PQM) managed by the US Pharmacopeial Convention (USP), the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) managed by Management Sciences for Health (MSH), and Links Media, in addition to representatives from 19 of the 21 malaria-endemic countries in the region.

III. Scope of Work

The scope of work for Links Media included the following specific activities:

- Participate in the three meetings by providing strategic technical input and feedback for communication as needed by country and technical partners
- Meet with country partners to share progress on country and regional communication strategies and gather feedback to help in their completion
- Give two presentations, the first during the annual evaluation meeting on key communication considerations for country and technical partners, and the second to the steering committee, highlighting Links Media's work in communication and advocacy
- Gather information and compile key discussion items for the development of various communication products such as quarterly bulletins, the project-wide annual report, website, and success stories based on other participants' presentations

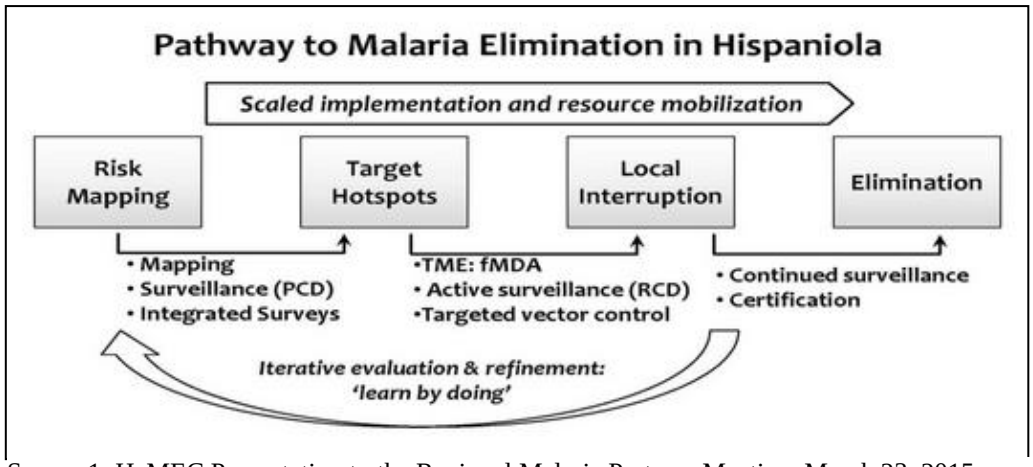
IV. Source of Funding for the Trip

This trip was supported through funds budgeted from the USAID/Peru contract (No. AID-527-C-13-00004) with Links Media for the Communication Component of the Amazon Malaria Initiative (AMI).

V. Trip Activities

The week was divided into three meetings. The first meeting was the Regional Malaria Partners Meeting, which was convened by PAHO/WHO on March 23rd. The purpose of the meeting was to bring together representatives from different malaria initiatives in the region and raise awareness about the multiple malaria initiatives, with the end goal of identifying a mechanism for better coordination. Presentations were given on the Initiative for the Elimination of Malaria in Mesoamerica and the Island of Hispaniola (EMMIE), the newly created Haiti Malaria Elimination Consortium, the malaria activities of the Barcelona Institute for Global Health (ISGlobal), and the International Centers of Excellence for Malaria Research in Peru and Columbia. On behalf of the Regional Coordinating Mechanism (MCR, by its acronym in Spanish) and the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA), Dr. Luz Mercedes of the Dominican Republic gave an overview of the Global Fund to fight AIDS, Tuberculosis, and Malaria (GFATM)'s EMMIE Initiative. EMMIE has the end goal of eliminating malaria from the 11 participating countries by 2020. Links Media had been in discussion with key actors from EMMIE previously and as a result has shifted the focus within the Central America Malaria Communication Strategic Guide towards elimination.

In February 2015, the Bill and Melinda Gates Foundation announced a new grant awarded to the CDC to lead the Haiti Malaria Elimination Consortium (HaMEC). Dr. Michelle Chang from the CDC presented on HaMEC, which like EMMIE aims to eliminate malaria from the island of Hispaniola by 2020. PAHO/WHO, the CDC, and seven other institutions make up the HaMEC consortium. The new grant is for $29.9 million over six years; however, a



Source 1: HaMEC Presentation to the Regional Malaria Partners Meeting, March 23, 2015

funding gap still exists to meet the estimated $80 million that is needed to eliminate malaria in Haiti by 2020. ISGlobal presented primarily on the Malaria Eradication Scientific Alliance (MESA) and its Malaria in Pregnancy (MiP) work in Latin America. One area that Links Media identified for support is the promotion of attendance of the Science of Eradication: Malaria course in order to better orient malaria actors in the region on elimination.

The final set of presentations was from the International Centers of Excellence for Malaria Research (ICEMR) from both Peru and Colombia. These presentations introduced valuable information including the role of advanced methods such as sero-epidemiology for tracing parasites and their origin, and the importance of creating interventions for asymptomatic cases that may create a reservoir of malaria transmission in endemic areas. With these different regional initiatives, considering similarities between them and with AMI/RAVREDA, PAHO/WHO's Regional Malaria Program has determined that a Technical Advisory Group (TAG) should be formed to help coordinate and guide regional malaria control and elimination efforts. This TAG will bring together regional experts, provide guidance to multiple initiatives, and help validate a new multi-year regional strategy moving forward. Links Media believes it is vital that there be a representative for communication who can help advocate for the need for better coordination, information sharing, and dissemination of results on the TAG. For better coordination and communication among regional malaria partners, several different mechanisms could be used to improve transparency and information sharing, including promotion through the AMI quarterly bulletin, website, and social media platforms.

From March 24–26, the AMI/RAVREDA XIV Annual Evaluation Meeting took place, which included technical presentations from several country representatives and from AMI/RAVREDA technical partners, on various technical areas including treatment and diagnosis, surveillance, vector control, antimalarial resistance, medicine quality and supply chain management, and communication. During this meeting, both Dr. Jaime Chang from USAID/Peru and Dr. Rene Salgado from the President's Malaria Initiative (PMI) reiterated the US Government's support to the initiative and the collaborative efforts in the region.

Links Media's presentation on communication took place on the last day of the evaluation meeting; it was entitled, "Malaria Communication for Prevention, Control, and Elimination." As per the instructions of COR Dr. Jaime Chang, technical partners tailored their presentations on the work ahead in the efforts against malaria.

One of the main issues addressed during the three days involved the transition towards malaria elimination. The countries in Latin America and the Caribbean are at varied stages from control to pre-elimination to elimination. From the discussions, it appears that there is not a shared understanding of what elimination means. With some countries on the verge of certifying malaria elimination, such as Argentina and Paraguay, there is an opportunity to share lessons learned within the region to help move towards elimination. Based on this information, Links Media suggests that part of the work moving forward be to help raise awareness on the definition of malaria elimination and the process for elimination certification. This can be solved through improved information sharing and communication among regional and country-level actors.

Another key issue that was deemed a public health concern was the possible emergence of artemisinin resistance. Following a consultation meeting in November 2014 in Suriname, Dr. Trent Ruebush presented the overall approach to the regional strategic framework to prevent or respond to the emergence of artemisinin resistance. Though there is no confirmed artemisinin resistance in the region according to the current definition, Guiana Shield countries in particular need to be proactive in order to prepare to respond to potential threats. Links Media has been working with PAHO/WHO and country partners to finalize a communication strategy that can be used in conjunction with the overall regional strategic framework. Part of this work will entail helping health authorities and partners to articulate key public health messages. A positive example of the AMI/RAVREDA network was highlighted through the work of the CDC with PAHO/WHO and country partners to conduct K13 testing, which is helping to shape the strategy and response to the threat in the region. This can serve as a positive lesson learned from which other regions could benefit in applying regional partnerships.

Other major topics included guaranteeing access to prompt, quality diagnosis and treatment, access to and quality of essential medicines, and vector surveillance and control in light of the reduced number of malaria cases. Both Dr. Edgar Barillas (SIAPS) and Dr. Victor Pribluda (USP/PQM) presented information on their work as AMI technical partners, including the need for better reporting and procurement systems within the countries. Some countries have experienced an oversupply of antimalarial medicines, while others have faced shortages of essential medicines. Shortages can result in treatment failure and possibly contribute to antimalarial resistance if people do not have access to effective quality-controlled medicines. Dr. Pribluda highlighted USP/PQM's recent work with drug regulatory agencies in Latin American countries, and how the PQM program is working to establish a regional South-South collaboration mechanism for ensuring the quality of medicines. With regard to vector surveillance and control, significant knowledge gaps exist that hinder officials' ability to make evidence-based vector control decisions. The region has limited tools available for vector control, and of those in use, many uncertainties remain as to their acceptability and impact among target populations. Communication should be used by vector control actors to help advocate for additional resources to address the acceptability and impact of interventions within target audiences.

On March 27th, the AMI/RAVREDA XVII Steering Committee Meeting took place with a

much smaller number of participants, including technical partners and country representatives from Belize, Brazil, Colombia, and Honduras. The partners gave presentations on their work from the past year and the challenges that they had encountered. Challenges included the difficulty of antimalarial medicine access, supply of essential medicines, and availability of confirmatory tests. Certain national laws have made it difficult for new medicines to be introduced as recommended treatments. In addition, with the reduction of cases, drug manufacturers are finding fewer incentives to produce antimalarial medicines for countries in the region. There is a strong need to support the technical and country partners with communication materials to help policymakers understand the importance of new drugs and to work with drug manufacturers to see the value in continuing to produce medicines for their communities.

The TAG was discussed further during the Steering Committee meeting. The TAG will help coordinate and conduct strategic planning for malaria activities in the region. Currently, the TAG has to be approved by the PAHO/WHO Assistant Director. PAHO/WHO will then receive nominations for the 8-12 person group (maximum of 15). All TAG members must be volunteers who agree to provide unbiased technical expertise. This is something in which Links Media would like to be involved to provide technical expertise in the area of communication. Finally, as countries move towards elimination, there is an opportunity for key country-level and AMI/RAVREDA technical representatives to attend a training course in São Paulo in September 2015. This course on the Science of Eradication is based on the global course of the same name, coordinated by Harvard University with other institutions. The course in São Paulo will apply the same principles with consideration for the Latin America and Caribbean context. Links Media will work with PAHO/WHO and the organizers to share information on this course, and will apply to participate in the course.

The next AMI/RAVREDA Annual Evaluation meeting will be in either Colombia or Honduras. PAHO/WHO will determine the location based on access and availability.

VI. Conclusions and Follow-Up Actions

Links Media found the trip to be beneficial in that we were able to better engage with country focal points, receive updates on AMI/RAVREDA's main technical intervention areas, and establish a common understanding of communication technical assistance moving forward. Numerous national malaria control programs (NMCPs) had experienced staff turnover or health system restructuring in the past year, so it was helpful to identify and connect with the new points of contact. It was also helpful that Ministries of Health (MOH) from Brazil, Colombia, Ecuador, Peru, and several other countries sent representatives from outside of their vertical malaria control programs, in order for Links Media to engage with these institutions on another level. In addition, Links Media was able to exchange information with other regional malaria actors who participated in the meeting, such as CHAI and ICEMR, whose work intersects with ours. Finally, following the steering committee meeting, Links Media had a productive conversation with COR Dr. Jaime Chang on next steps for the AMI Communication Component, in light of the fact that there are just over 18 months remaining in the current contract period of performance. The foregoing is a summary of recommendations by country:

Central America: After speaking with representatives and receiving feedback from Dr. Chang, Links Media will make adjustments to the draft strategy and will plan to share the draft strategy with the relevant countries in both English and Spanish within the month.

Belize's representative, Mr. Kim Bautista, indicated that there is a great need for communication and advocacy tied to the EMMIE Initiative. Links Media explained publicly that this strategy was created for AMI-supported countries; however, it was developed with EMMIE and the Central American countries' official elimination objectives in mind.

Colombia: Upon the conclusion of the Steering Committee meeting, Links Media spoke with MOH representative Dr. José Valderrama, who asked for Links Media to be in contact with him in order to establish a connection with the head of communication and an anthropologist at the MOH. Links Media will establish communication with these individuals to work on completing the draft communication strategy.

Ecuador: Ecuador's MOH representative Dr. Jorge Bejarano expressed that our help is needed in order to improve the ability to advocate on behalf of malaria to the minister of health, especially in the context of the new health system structure. Links Media will continue to provide support to Ecuador and work with Dr. Bejarano to seek acceptance of the national communication strategy.

Guyana: Links Media agreed with the NMCP director, Dr. Reyaud Rahman, that Links Media will develop a policy brief on rapid diagnostic tests (RDTs) in coordination with PAHO/Washington. The objective of this policy brief is for Guyanese decision makers to recognize that RDTs are a valuable health commodity, and allocate sufficient funds to acquire RDTs for all four endemic regions in the next budget cycle. This will contribute to institutionalizing the results of rigorous studies and pilots of RDT use conducted by external actors.

Peru: Two Peruvian MOH representatives attended the AMI/RAVREDA evaluation meeting and expressed an interest in Links Media's communication support. Following a March 2015 technical meeting in Iquitos, Loreto, the direction of Links Media's support has changed, and it appears that in addition to providing guidance and tools for community health workers for health communication and outreach, there is a greater to support the MOH in working with local community-based organizations in the region of Loreto. After speaking with Dr. Chang, we agreed that the best course of action will be to focus on: 1) supporting MSH/SIAPS on introducing a new presentation of antimalarial medicines in Peru; and, 2) providing communication guidance for the MOH to improve coordination with other health actors that are embedded in the remote communities that are affected by malaria in Loreto.

Suriname: The draft communication strategy was shared and discussed with the new NCMP director, Dr. Helene Hiwat, during the AMI/RAVREDA evaluation meeting. Additional funding will be needed for full implementation; however, Suriname is open to doing some communication activities on the institutional front, especially if USAID can support the implementation of that component. With the overall malaria elimination strategy well defined, Suriname seems poised to take action in the near term.

With regard to the overall approach of the strategic communication support that Links Media provides to AMI, Dr. Chang recommended that more emphasis go towards providing TA that meets country needs and that efforts in public outreach via social media should be reduced. Links Media will also coordinate with and assist PAHO/Washington in conducting outreach for the formation of the proposed TAG and the Malaria Champions of the Americas 2015 call for nominations.

Links Media considers it vital that a representative from the field of health communication be selected to participate in the TAG. The communicator could provide insight into emerging issues and challenges that need to be addressed in the region, in order to help shape the strategic vision for the new multi-year strategy and action plan. The field of health communication brings a patient-centered perspective to important interventions at the level of health systems. Moreover, through participation in the TAG, a communicator could help advocate for better coordination, information sharing, and dissemination of results.

Annex 1: Meeting Agendas

Organización Panamericana de la Salud

Organización Mundial de la Salud
OFICINA REGIONAL PARA LAS Américas

REUNION DE SOCIOS

MALARIA EN LA REGION DE LAS AMERICAS

Lunes 23 de marzo de 2015

Rio de Janeiro, Brasil

Objetivo:

1) Presentar una actualización de las recientes iniciativas e instituciones trabajando en malaria en la Región de las Américas.
2) Analizar mecanismos de comunicación e intercambio de información, con el fin de optimizar la coordinación entre las diferentes agencias e instituciones.
3) Discutir posibles formas de maximizar el esfuerzo coordinado y entrega de cooperación técnica, para beneficio de los países que luchan por controlar y eliminar la malaria en las Américas.

2:00- 2:15:00 Bienvenida e introducción

Dr. Marcos Espinal, Director, CHA/OPS

2:15 – 2:45 Presentación de las diferentes instituciones y recientes iniciativas

Moderador: Dr. Keith Carter

- EMMIE/Fondo Global. Luz Mercedes, MCR (:10)
- HaMEC. Michele Chang. CDC (:10)
- ISGlobal – vía skype (:10)

2:45 – 3:00 Aclaraciones

3:00 – 3:15 Café

3:15 – 3:35 Continuación….

- ICEMR/Perú. Joe Vinetz (:10)
- ICEMR/Colombia. Sócrates Herrera (:10)

3:35 – 4:30 Preguntas y comentarios

4:30 – 4:45 Conclusiones y cierre

Dr. Luis Gerardo Castellanos, Coordinador CHA/VT

Ministério da Saúde — BRASIL PÁTRIA EDUCADORA

AMI/RAVREDA Iniciativa Amazónica Contra la Malaria
Red Amazónica de Vigilancia de la Resistencia a los Antimalaricos

XIV Reunión Anual de Evaluación de AMI/RAVREDA
Rio de Janeiro, Brasil - 24 al 26 de marzo del 2015 - Agenda

Organização Pan-Americana da Saúde | Organização Mundial da Saúde | USAID | CDC | SIAPS | USAID USP | LINKS MEDIA

AGENDA

Tuesday March 24, 2015	
8:30 to 9:00	Registration
9:00 to 9:30	**Welcome and Introductions** Dr. Joaquin Molina, PAHO / WHO Representative Brazil Dr. Marcos Espinal, Director, Department for Communicable Diseases and Health Analysis, PAHO/WHO, WDC USAID Representative TBD Dr. Claúdio Maierovitch, Director, Department for Communicable Diseases, Ministry of Health of Brazil
9:30 to 9:45	Meeting Overview, participant introductions Ade, MP Security Orientation - Baptista P. UN/Brazil
9:45 to 10:25	**SESSION 1: Analysis of the situation and challenges faced by countries in the prevention, control, and elimination of malaria** ***Global and Regional Perspectives*** • Global overview and Regional Situation. Carter K., PAHO (:20) • Lessons learnt from AMI/RAVREDA and perspectives for the future. Chang J., USAID (:20) • Global Strategy of USAID / PMI and regional activities. Salgado R., USAID (:20)
10:25 to 10:40	*Coffee break*
10:40 to 12:35	***Country Perspectives: progress and challenges in achieving national goals, including cross-border collaboration*** • Brazil (:20) • Mexico (:20) • Nicaragua (:20) • Paraguay or Ecuador (:20) Discussion (:20)
12:35 to 14:00	*Lunch*

Ministério da Saúde — BRASIL PÁTRIA EDUCADORA

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14:00 to 16:00	**SESSION 2: SURVEILLANCE AND THE CURRENT SITUATION OF THE EFFICACY OF AND RESISTANCE TO ANTIMALARIALS IN THE REGION OF THE AMERICAS** -Methods used and updates on efficacy studies recently conducted through: *In vivo studies* • Suriname (:20) • Guyana (:20) • Brazil (:20) Findings from *in vivo* therapeutic efficacy studies for *P. vivax* in Acre, Brazil (:20) *Studies with Molecular Markers* • Guyana samples analysed by the Pasteur Institute in Cayenne, French Guiana. Musset L. (:15) • Suriname samples analysed by the CDC (Atlanta, USA) and the evolutionary perspective of drug resistance in South America. Udhayakumar V. (:25) Discussion (:30)
16:00 to 16:15	*Coffee break*
16:15 to 17:30	-Global situation, updates and next steps. Ringwald P., WHO (:20) -Guidelines for the Prevention, Containment, and Elimination of Artemisinin Resistance in South America. Ruebush T. (:20) Discussion (:35)
Wednesday, March 25, 2015	
9:00 to 10:30	**SESSION 3: ACCESS AND QUALITY OF DIAGNOSIS** - Program for the quality assurance of RDTs for malaria. WHO-FIND: Results and future activities. González, I. (:20) - Results from the External Quality Assurance Programme (EQAP) and actions taken with participating countries. Peru / Honduras / PAHO. Ade MP., PAHO (:20) Programmes that ensure access and guarantee the quality of diagnosis: installed capacities in the countries and experiences with the EQAP Brazil: Quality assurance for diagnosis in the country. Marchesini P. (:20) Discussion (:30)
10:30 to 10:45	*Coffee break*

Ministério da Saúde — BRASIL PÁTRIA EDUCADORA

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10:45 to 12:30	- G6PD deficiencies in an ongoing study in Honduras. Fontecha G., Honduras (:20) - Improving diagnostics tools for malaria elimination: detection and treatment for subclinical infections to halt transmission. Gonzalez, I. (:20) -Different laboratory tools for case management, surveillance, in areas of elimination and for outbreak investigation. Udhayakumar V., CDC (:20) Discussion (:30)
12:30 to 14:00	Lunch
14:00 to 16:00	**SESSION 4: ACCESS AND USE OF ANTIMALARIALS** -Supply chain management in AMI countries and strategies for the future. Barillas E., MSH (:20) - Current situation of joint procurement through the PAHO Strategic Fund and next steps based on the current situation. Giron N. PAHO (:20) - Monitoring antimalarial stocks, coordination among partners and countries. Giron N., PAHO (:20) - Discussion (:60)
16:00 to 16:15	Coffee break
16:15 to 17:45	**SESSION 5: QUALITY OF ANTIMALARIALS** - Network formed to contribute to the efforts of the countries/tool for the first level. Pribluda V., USP (:20) - Re-structuring of the network for monitoring the quality of antimalarials in Brazil. Santelli, A.C., Brazil (:20) - Presentation of the results of the quality control of medicines purchased through the PAHO Strategic Fund. TBD, PAHO (:20) Discussion (:30)
Thursday, March 26, 2015	
9:00 to 10:30	**SESSION 6: VECTOR SURVEILLANCE AND CONTROL** - Regional perspective: Entomology and Public Health. Challenges and next steps. Bezerra H. (:30) - Country perspectives: - Information systems for entomology and vector control. Damasceno, C., Brazil (:20) - The Colombian experience in the Development and implementation of the SIVIEN system (System for Entomological Surveillance). Colombia (:20) - Study on mosquito net durability in Guatemala. Castellanos, M / Changin, S., Guatemala (:20)
10:30 to 10:45	Coffee break

Ministério da Saúde — BRASIL PÁTRIA EDUCADORA

AMI/RAVREDA Iniciativa Amazónica Contra la Malaria
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10:45 to 11:35	- Knowledge gaps that make it a challenge to provide evidence-based vector control recommendations to AMI partner countries. Lenhart A., CDC (:20) Discussion (:30)
11:35 to 12:35	**SESSION 7: EPIDEMIOLOGICAL SURVEILLANCE** - Challenges encountered and lessons learnt: • El Salvador (:20) • Peru (:20) • USA. Macedo A., CDC (:20) Discussion (:20)
12:35 to 14:00	*Lunch*
14:00 to 15:30	- Surveillance: Malaria in pregnant women. TBD, ISGlobal (:20) - Experiences in the external supervision of *in vivo* studies. Daher, A. (:20) - *P. vivax*: Challenges and strategies for its containment and elimination. Siqueira A., FIOCRUZ / Brazil. (:20) Discussion (:30)
15:30 to 16:30	**SESSION 8: ADVOCACY AND COMMUNICATION** - Malaria Communication for Prevention, Control, and Elimination. De Carvalho, R. Echalar, LinksMedia (:20) - Preliminary results from the research agenda for the Americas. Escalada R., PAHO (:20) Discussion (:20)
16:30 to 16:45	*Coffee break*
16:45 to 17:30	**Conclusions and closing**

Ministério da Saúde

AMI/RAVREDA Iniciativa Amazónica Contra la Malaria
Red Amazónica de Vigilancia de la Resistencia a los Antimalaricos

XVII Reunión del Comité Coordinador de AMI/RAVREDA

Rio de Janeiro, Brasil - 27 de marzo del 2015 - Agenda

Friday March 27, 2015

Attendees:

AMI/RAVREDA **Partners +** 4 countries (BRA, HON, COL, BLZ)

9:00-12:30	Introduction by USAID
	Comments on partners' work plans (progress, problems, changes) & financial situation by each partner: CDC, MSH, USP, Links Media and PAHO (30' each one).
	Discussion 30'
12:00-13:30	Other issues to be discussed:

- Next AMI/RAVREDA Annual Meeting venue – March 2016
- AMI post-2015
  - PAHO Regional Plan for Malaria 2015-2019/GTS 2015-2025
  - PAHO TAG for malaria

13:30-15:00	Lunch
15:00 – 16:30	Continuation from previous session
16:30	Closing remarks

Annex 2: Meeting Participants

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Annex 3: Select Photographs

Photo 1: AMI/RAVREDA Annual Evaluation Meeting group photograph

Photo 2: AMI/RAVREDA Annual Evaluation Meeting participants

Photo 3: Links Media presents during AMI/RAVREDA Annual Evaluation Meeting

Photo 4: Links Media presents during AMI/RAVREDA Annual Evaluation Meeting

Annex 4: USAID/PERU COR Invitation Letter

USAID | PERU
FROM THE AMERICAN PEOPLE

February 17, 2015

Mr. Brian Kubiak
Links Media L.L.C.
451 Hungerford Drive, Suite 503
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Dear Mr. Kubiak,

As you are informed, the XIV Annual Evaluation Meeting for the Amazon Malaria Initiative (AMI) and the amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA), and the XXVII AMI Steering Committee Meeting are scheduled for March 24-28, 2015, in Rio de Janeiro Brazil.

With reference to the scope of work of the contract between the United States Agency for International Development and Links Media L.L.C. to serve AMI objectives, we request that Ms. Julie de Carvalho and Mr. Ricardo Echalar, Lead Technical Manager and Technical Coordinator for activities under the contract respectively, participate in the above referred to meetings. Please note that they must plan for arriving to Rio de Janeiro no later than the evening of March 22 and leave no earlier than the evening of March 28.

Cordially,

O. Jaime Chang N., M.D., M.Sc., M.P.H
Amazon Malaria Initiative Coordinator
Health an Education Office

How low can we go?

Lessons from an integrated partnership for malaria control in the Americas

Introduction

Malaria incidence in Latin America and the Caribbean decreased by 65% from 2001 to 2013, which has resulted in new challenges for maintaining the availability of quality antimalarials and other key interventions. The Amazon Malaria Initiative (AMI) is a regional partnership supported by USAID that assists countries to address these challenges by incorporating selected best practices for malaria prevention and control. AMI is affiliated with the Amazon Network for Antimalarial Drug Resistance Surveillance (RAVREDA), which is the regional network of national malaria control programs that monitor antimalarial efficacy. Participating countries receive technical assistance from the Pan American Health Organization (PAHO/WHO), the USAID-funded Systems for Improved Access to Pharmaceuticals and Services program (SIAPS), the Promoting Quality of Medicines program (PQM), U.S. Centers for Disease Control and Prevention (CDC), and Links Media. AMI promotes the use of networking and systems strengthening to improve access to diagnosis and treatment, pharmaceutical supply management, quality control of medicines, epidemiological surveillance, vector surveillance and control, and the monitoring of antimalarial efficacy in order to continue to reduce the region's malaria burden. The introduction of a regional stock monitoring system is one solution that has helped to mitigate problems with the availability of antimalarials in Latin American and Caribbean countries due to decreased incidence of malaria. Through this system, regional collaboration has helped to make stock-outs of antimalarial medicines increasingly rare. While other challenges remain for malaria control, maintaining a continuous supply of pharmaceuticals is no longer a significant obstacle in the region.

Antimalarial Donations to AMI Countries

Methods

Regional Monitoring System

Stock levels were evaluated based on one indicator measuring availability in months of stock.

- Collect available stock data and distribution data from warehouses
- Send stock data to PAHO by end of the first month after end of quarter
- Consolidate country data into regional bulletin
- Disseminate bulletin by 15th of the month following end of quarter

Minimum Stock Levels in Health Facilities

Minimum stock levels were based on facility level and epi data from regions. Stock levels were set for Pf., Pv. and medicines for severe treatment

- Presentation of the epi situation and antimalarial supply
- Determine ranges of high, medium and low transmission of the country
- Establish minimum stock levels according to epidemiological scenarios and antimalarial stock availability in the warehouses
- Implement stock level recommendations

Pooled Procurement

The pooled procurement was conceived to help countries procure small quantities of medicines by aggregating the regions procurement.

- Submit estimates to PAHO by end of first quarter
- Float tender by PAHO
- Submit orders to PAHO by countries
- PAHO places order for medicines
- Medicines delivered by first quarter of the following year

Photo by: Marieke Heemskerk 2012

Results

Regional Monitoring System

Since June 2010, when regional data was first collected, antimalarial supply data has been collected and reported from participating countries for seventeen quarters. The first report included data from four South American countries. Between five and seven South American countries participated in the regional monitoring system for the first six quarters. In the first quarter, 2012, five Central American countries were included in the monitoring system.

	Times meds exchanged	Quantity of medicines donated/ exchanged	Value of medicines exchanged
Inter country	23	4,065,964	$80,120
PAHO	61	73,211	$21,814
Total	84	4,139,175	$101,935

Minimum Stock Levels in Health Facilities

In 2011, SIAPS and AMI began to revise programming and distribution criteria in six Central and South American countries. The countries developed criteria to stock antimalarials in all facilities in the country based on incidence in each region of the country. Each country divided their regions/ departments into high, medium and low incidence based on the incidence rates in the countries. Facilities and warehouses were grouped by level of attention such as health facilities or hospitals and size of the warehouse. The countries developed minimum stock levels for each level of attention based on the level of incidence in the regions. This was completed for P. falciparum, P. vivax and sever malaria.

- 5 Central and South American countries developed minimum stock levels for facilities for Pf., Pv. and severe malaria

Pooled Procurement

Pooled Procurement is a yearly procurement mechanism that all AMI countries can participate in to improve stock availability for malaria commodities in their countries.

Participating Countries in the Consolidated Procurement by Year

2011-2012	2012-2013	2013-2014
Honduras	Brazil	Brazil
Nicaragua	Colombia	Colombia
Panama	Ecuador	Ecuador
	Honduras	Honduras
3	4	4

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Conclusions

AMI countries appear to have improved their stock availability in central warehouses between 2010 and 2014 since the availability of antimalarials improved from 57% to 85% over that time period. It is unclear if medicine availability has improved throughout the entire supply chain however, since he participating countries didn't survey stock availability at health facilities. Countries are better prepared to supply medicines to all regions of the country if antimalarials are available in the central warehouse, so it is believed that improved availability of medicines at the central level will lead to improved availability downstream at regional warehouses and health facilities.

As incidence decreases in AMI countries, cases are concentrated in remote areas of the countries and in migrant populations. Cases are found in border regions of the countries in migrant populations. There is a need for AMI to focus future interventions towards the migrant and difficult to reach populations. For example, AMI has begun to focus resources towards improving availability of antimalarials in regions with illicit gold miners in Suriname, Guyana, Brazil and French Guiana.

Stock level improved from

2nd quarter 2010	1st quarter 2012	2nd quarter 2014
57%	79%	85%
N=4	N=8	N=9

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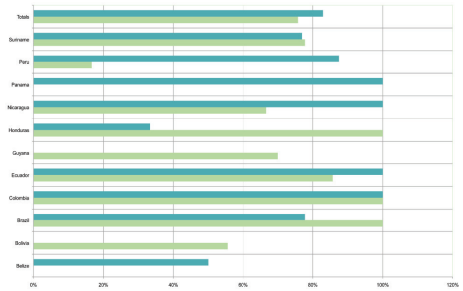
Photo by: Celine Duijves 2013

Antimalarial Availability by Quarter, 2011 vs. 2014



	2011	2014	2014
% of medicines available	76%	83%	
% of countries reporting	75%	75%	2011
# of reporting countries	9	9	

Antimalarial Stocks and Countries Reporting to the Regional Monitoring System

USAID FROM THE AMERICAN PEOPLE

SIAPS Systems for Improved Access to Pharmaceuticals and Services

Control/Tracking Number: 15-A-2984-ASTMH
Activity: Abstract
Current Date/Time: 4/8/2015 5:25:08 PM

So you say you want elimination? Using communication and advocacy to advance malaria elimination in the Americas

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Abstract:
A qualitative assessment of the communication component of National Malaria Control Programs (NMCPs) in 11 countries in Latin America and the Caribbean was conducted from 2013-2014. The assessment surveyed the overall programmatic objectives, existing resources for communication, malaria stakeholders, target audiences, ongoing communication activities, and gaps. Among the main findings of the assessment showed challenges in providing information to decision-makers to support and sustain efforts, expanding and strengthening partnerships beyond the health sector, and reaching special populations that have a higher burden of disease including indigenous communities and migrant workers. Overall, communication activities were found to be focused at the community level with less attention paid to decentralized health system professionals, and very few if any activities directed at the policy-level. Two examples of the role of effective communication at the policy-level include Suriname, which made significant strides against malaria from 1995-2015 and is now on the path to elimination with help from a National Malaria Board that brings together technical advisors, civil society actors, and other government ministries to help guide the policy making process. In Brazil, new legislation was passed in 2014 to require companies completing infrastructure projects in the Amazon region to engage in a series of activities, including social mobilization, to assess the impact and mitigate the risk of greater malaria transmission in the surrounding area. As more countries in the Americas transition towards elimination, malaria communication will have a sizable role to create a shared understanding among key decision-makers and malaria partners of what it means for countries to be working towards elimination and beyond, in terms of funding levels, technical interventions, multi-sectoral engagement, and sustained surveillance and reporting requirements. Channels and mechanisms that have worked in some countries should be explored for use in others, especially at the policy-level to ensure long-term commitment.
:

Category (Complete): Malaria – Elimination
Presentation Preference (Complete): Oral
Keyword (Complete): communication ; advocacy ; Latin America
Disclosures (Complete):
Response : I did not indicate a conflict of interest.
Response: I confirm
Response: I confirm

Additional Info (Complete):
*** Required**: ASTMH Web Site
*** Required**: I am not an ASTMH member

*** Required**: Female

: Yes. There are an ongoing malaria elimination initiatives in Central America, the Caribbean, and select South American countries, but nothing has been published on the role of communication and advocacy in achieving the elimination targets set for 2020. This abstract provides new recommendations based on an assessment of 5 Central American and 6 South American countries' National Malaria Control Programs. Partial findings have been presented in PowerPoint at an AMI/RAVREDA steering committee meeting.

*** Required**: Not Applicable

: Global health

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